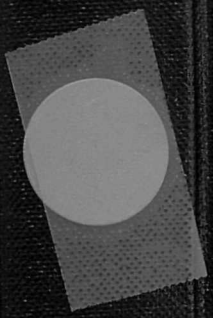
GUY'S
HOSPITAL
GAZETTE



VOL. 64.

1950.

GUY'S HOSPITAL GAZETTE

VOL. LXIV

THE WILLS LIBRARY
GUY'S HOSPITAL

1950

INDEX

A

PAGE

"A" Bomb Burns, by Patrick Clarkson 86, 120
About the Park .. 31, 42, 66, 101, 124, 132, 163, 240, 309, 343, 368, 427
A.C.T.H. (See Cortisone).
Advertisers. Apology 343
Allday, R. K., The Rhesus Factor .. 408
Alldridge, D. G. E., Visit to a Spinal Centre 243
America Re-visited, by Sir Heneage Ogilvie 194, 221, 244, 258
America, Staff visits to 1
American Obstetrics and Gynæcology, A Glimpse of, by T. L. T. Lewis .. 312
Angove, Helen, awarded O.B.E. .. 272
Antibiotics—Some Recent Advances, by R. E. Irvine 355
Appointments and Vacancies—
Cambridge, University of 167
Civil 19, 130, 150, 188, 250, 348, 365, 406, 466
Evelina Hospital 289
Guy's Hospital—
Anæsthetist, Resident .. 60, 167, 342
Assistant Physician .. 150, 167, 301
Astley Cooper Studentship .. 489
Dental Officer to the Nursing Staff 167, 270
Dental School .. 167, 188, 208, 270, 290, 306, 321
Casualty Department .. 365, 390
Conservative Dental Surgery 365, 390, 446, 465
Dental Department for Children 365, 390
Junior Dental Staff 322
Dermatological Registrar 365
Guy's-Maudsley Neurosurgical Unit 465
House .. 80, 229, 341, 464
Junior Medical Registrars .. 104
Junior Staff 289, 321
and Medical School 208
Medical School 289
Anatomy Department .. 104, 130
Pharmacology, Department of, Junior Lecturer 348
Medical Registrar 80a
Medicine, Department of, Junior Assistant to the Director .. 167
Nervous Diseases, Department of, Chief Assistant 489
Neurological Department .. 249, 270
Nuffield House 104
Resident Medical Officer .. 365
Obstetrics, Department of, Assistant to the Director .. 249
Ophthalmological Department 249, 270
Registrar 390
Orthopædic Department 80a
Pædiatric Department 80a
Director 446, 465
Psychological Medicine, Department of 130, 150, 249, 270, 322
Assistant Physician .. 342, 493
Registrar 390, 445, 465
Research Fellow—
in Department of Anæsthetics 342
in E.N.T. Department 342
in Mitral Stenosis 342
on the Problem of the Incidence of Lower Respiratory Infection following Dental Operations 342
Salomon's Centre 167
Staff 490
Surgical Thoracic Unit, Registrar 390
Senior Registrar 390
V.D. Department, Medical Officer 342
York Clinic for Psychological Medicine 230
Resident House Physician .. 365
Sector Hospitals 229, 464
University of London 20

PAGE

Artists, an Invitation to 184
Athletic Club 101
Annual Sports 247
Atkins, H. J. B., John Hilton 428
Awards. (See also Honours) 272
Order of St. John 60
Territorial Efficiency Decoration 207, 446

B

Barber, Hugh, The Body-Snatchers .. 27
Waters, Holidays and Cures .. 232
Beale, A. J., Tuberculosis Control .. 135
Biennial Dinner .. 82, 188, 288, 348, 392
Birmingham Dental Students' Society 270
Births 20, 40, 60, 80a, 104, 130, 150, 168, 188, 208, 230, 250, 270, 290, 306, 322, 342, 348, 406, 426, 446, 466, 490, 506
Bishop, P. M. F., Further Observations on A.C.T.H. and Cortisone, Clinical Lecture 111
Blood Transfusion (Editorial) 169
Blues, Award of 40, 207
Body-Snatchers, by Hugh Barber .. 27
Books, on the Choice and Use of, by J.A.R. 469
Bookstall at Guy's 16
Bowel Obstruction, Small, by R. S. Lawrie, Clinical Lecture 106
Boxing Club 58
Annual General Meeting 269
Inter-Hospitals Championships .. 103
Seymour Hall Tournament 37, 79
v. R.M.A., Sandhurst 489
v. Trinity College, Dublin 103
Bright, Richard, A Bio-Bibliography by William Hill 373, 393, 419, 439, 454, 472
British Dental Students' Association, Annual Convention 249
Browne, Robley, Obituary 164
Bulleid, W. A., Some Reflections .. 436
Correction of Author's name to Arthur Bulleid 448
Burns, 'A" Bomb, by Patrick Clarkson 86, 120

C

Cameron, H. C., Joseph Lister and the Beginnings of Modern Surgery .. 67
Carbutt Memorial Lecture 60
Care of Children, by Leslie Housden .. 252
Change of Address 20, 40, 60, 168, 188, 208, 250, 270, 290, 322, 348, 366, 406, 426, 446, 466, 490, 506
Change of Name 40
Channell, G. D., Death of 210
Chapel, Guy's Hospital, Redecoration of 193
Illustration 311
Chaplain, Free Church, Appointment of Rev. Sidney Franklin 349
Children, Care of, by Leslie Housden .. 252
Pot Belly in, by Mark Ravitch, Clinical Lecture 44
Christian Union, Guy's Hospital 426, 506
Christmas Cards and Gifts .. 425, 465
Circumcision, The Rite of, by H. St. H. Vertue 217
Errata 240
Clarkson, Patrick, "A" Bomb Burns 86, 120
Clinical Lectures—
Dr. P. M. F. Bishop:
Further Observations on A.C.T.H. and Cortisone 111
Mr. Nils L. Eckhoff:
Congenital Deformities 211
The Disc Lesion 4

PAGE

Clinical Lectures—*continued.*
Dr. Ralph Kauntze:
Peyronie's Disease and Proctalgia Fugax 23
Mr. R. S. Lawrie:
Small Bowel Obstruction 106
Professor Perrin H. Long:
Natural History of Certain Viral Infections of the Liver 273
The Natural History of Influenza 292
Dr. R. C. MacKeith:
Minor Maladies of the Nursling .. 190
Mr. O. Gayer Morgan:
Ocular Tuberculosis 177
Dr. Mark Ravitch:
Pot Belly in Children 44
Mr. Philip Reading:
The Chronic Running Ear .. 493
Clinical Medicine, The Scope and Limitations of Electroencephalography in, 152, 170
Clinical Meeting, Annual, Guy's Hospital Dental School 41, 55, 80a, 128
Clubs' Union, Guy's Hospital—
Accounts, 1949–50 462
Budgets, 1950–51 463
Council 54
College catering arrangements .. 408
Communications 201
Comparative Physiology, by Joan Endean 317
Congenital Deformities, by Nils L. Eckhoff, Clinical Lecture 211
Congress on Gastroenterology 60
Cook, W. F. 189
Correspondence—
Barbara Allen, Sport 76
C. B. Allsopp, Guy's Science Club .. 371
A. Baker, Thanks 459
H. W. Barber, "I've Stood in This 'Ere Market Place—" 36
Leonard C. Beaney, Guy's Shop .. 461
N. E. Bedow, Mr. J. Winston—An Appreciation 228
R. C. Brock, N. L. Eckhoff, S. H. Wass and J. Whillis, Mr. Gerald D. Channell 265, 370
E. E. Clapham, Etiquette 227
W. E. Le Gros Clark, "Practical Anatomy" 52
N. F. Clarke, *Soil Fertility and the Health of the People* 265
Wm. O. Cooksey, Proctalgia Fugax 53
D. C. Deuchar, Sport 75
W. D. Doherty, Chapel Clock .. 316
Anthony S. Dominick, Students and White Jackets 460
R. S. Dukes, Babies and Habits .. 371
R. S. Dukes, Tuberculosis Control .. 316
T. R. L. Finnegan, The Residents' Play 36, 51
E. Leslie Graff, Biennial Dinner .. 397
Eric Graham, Small Bowel Obstruction 185
Guy's Reunion in Egypt 287
T. H. Hills, Diagnostic X-Ray Meetings in the Gordon Museum 363
R. Hofmeyr, Biennial Dinner .. 362
Leslie Housden, A Doctor for Pioneer Work 85
P. Hume Kendall, The Hospital Clock 304
P. G. Large, Honor Oak Park .. 37
John O. Laws, The Junior Staff Committee 461
I. J. MacQueen, Cross-Channel Swimming 343
B. L. Mallett, Guy's Theatre Club .. 228
Stanley P. Meacock, Soil Fertility and the Health of the People 227, 265
C. V. G. Menzies, The Residents' Ball, 1950 143
W. P. N. Moore, Tickets for the Rugby International 51
O. Gayer Morgan, Medicine and Money 304

PAGE

Correspondence—*continued.*
E. A. Murray, The Hockey Club .. 2
"One Who Was There," The Buffaloes 76
P.F.A.C., Students and White Jackets 443
Alan Pollock, Annual Open Boxing Tournament 53
"Quis Custodiet," El Hakim Pasha 2
Phyllis E. Read, The Landon Children's Tea Party 484
"Retired Tobago," The Buffaloes .. 204
H. A. Ripman, Indices to the Lancet Maternity Department Reports .. 459
Ian Scott, History of the Hospital, 1725–1948 142
W. R. Spurrell, "Baker" .. 304, 363, 459
T. T. Stamm:
Soil Fertility and the Health of the People 288
Horace Steinback:
Proctalgia Fugax 204
G. D. Swann:
Tickets for the Rugby International 37
W. E. Tanner:
Proctalgia Fugax 52
J. D. Trounce and H. P. Guerrier:
The Physical Society 363
H. M. Stanley Turner:
"Among the Doctors" 265
Bromide Intoxication 52
Twenty-six Admirals:
Students and White Jackets .. 460
Two Voters:
Voting by Post 36
P. Wettsom:
Babies and Habits 460
David Wheatley:
"Antibiotics" 371
Cortisone, Further Observations on A.C.T.H. and, by P. M. F. Bishop, Clinical Lecture 111
Cricket—
Inter-Hospitals Cup Draw, 1950 .. 206
Reports:
v. Architectural Association .. 305
v. Ashtead 206
v. Beddington 206
v. Bognor 248, 305
v. Charing Cross Hospital (Inter-Hospitals Cup, 2nd Round) .. 268
v. Chartered Banks 247
v. Crofton Park 247, 248
v. Finchley 268
v. Hampstead 248
v. Honor Oak 206
v. Inns of Court 247
v. John Tanous 248
v. Kenley 305
v. Kenley 2nd 305
v. Lensbury 268
v. Lewisham 305
v. Merstham 364
v. Metropolitan Police 305
v. Private Banks 321
v. R.N.V.R. 321
v. St. Mary's (Inter-Hospitals Cup, Semi-Final) 305
Semi-Final Replays) .. 321, 364
v. Stoics 248
v. Streatham 305
v. Wadham College 247
v. Wanderers 206
Cricketasters' Carnival 383
Crowe, Arthur Robert, Obituary .. 362
C. S. G., A Personal Note, by T. B. J. 134

D

Dance—
Dental Society Annual Ball 354
Hockey Club 58
Radiographers and Physiotherapists 486
Rugby Football Club 39
Students' Union 390
Christmas Ball 471

PAGE

Dangerous Corner, A Guy's Theatre Club Production 485
Dare Quam Accipere, by W. Denys Giddey 32
Deaths 20, 40, 60, 80a, 104, 130, 150, 168, 188, 208, 230, 250, 270, 290, 306, 322, 342, 348, 406, 446, 466, 506
Dental Alumni 208
Appointments 362
Society 426
Annual Ball 354
Presidential Address, by Arthur Bulleid 436, 448
Dining Club, Guy's North Wales .. 448
Dinner, Innominate Club 188
Disc Lesion, N. L. Eckhoff, Clinical Lecture 4

E

Ear, Chronic Running, by Philip Reading, Abstract of Clinical Lecture 493
Eckhoff, Nils L., Congenital Deformities, Clinical Lecture 211
The Disc Lesion, Clinical Lecture .. 4
Egypt, Forensic Medicine in, by Keith Simpson 332
Electroencephalography in Clinical Medicine, The Scope and Limitations of, by M. J. Parsonage .. 152, 170
Elliott, C. C., Obituary 164
Endean, Joan, Comparative Physiology 317
Exhibition, Ear, Nose and Throat Department 446

F

Falconer, Murray A., Appointed Surgeon to Guy's and Maudsley Neurosurgical Unit 467, 490
Fiddes, F. S., A Note on the Investigation of Sudden Death 336
Fire in Hunt's House 82, 105
Football—
Association :
Officers, season 1950–51 347
Reports :
v. Alleyn Old Boys 38
v. Aquarius 102, 129
v. Bristol University 78
v. Croydon Athletic 405
v. Cuaco 103, 445
v. Ibis 166, 488
v. Imperial College 3rd XI .. 39
v. Old Lyonians 59, 129, 405
v. Old Stationers .. 38, 187, 405
v. Old Westminster Citizens .. 59
v. Parkfield 404
v. Reigate Priory Rovers .. 39
v. Royal Dental and Charing Cross Hospitals (Inter-Hospitals Cup, 2nd Round) 129
v. St. Bartholonew's Hospital (Inter-Hospitals Cup, Semi-Final) 129
v. St. Mary's Hospital (Inter-Hospitals Cup Final) .. 149
v. Southampton University .. 59
v. University College Hospital (Inter-Hospitals Cup, 1st Round) 445
1st Round Replay 488
v. West Wickham 58, 78
Rugby 2, 19, 368
Dance 39
Fixtures, 1951 505
Inter-Hospitals Cup Draw .. 505
Prospects for Hospital Cup .. 38
Seven-a-Side Competitions :
Middlesex 187
North Kent, Gravesend .. 187

PAGE

Rugby—*continued*.
Reports :
"A" XV *v.* St. Thomas' "A" XV (Inter-Hospitals Junior Cup) 102
v. Aberavon 78, 425
v. Bedford 425
v. Blackheath 405
v. Catford Bridge 364
v. Coventry 57
v. Edinburgh Academicals .. 463
v. Llanelly 149
v. London Irish 102
v. Metropolitan Police 78
v. Old Blues 463
v. Old Whitgiftians 405
v. Plymouth Albion 425
v. Richmond 149
v. St. Mary's Hospital "A" (Inter-Hospitals Junior Cup Final) 149
v. St. Thomas' Hospital (Inter-Hospitals Cup, 2nd Round) 102
v. Wasps 38
Foreman, Joseph, Death of 132
Obituary 369
Forensic Medicine in Egypt, by Keith Simpson 332
Founder's Day Service 168
Fracture, Spontaneous, on Osteoporosis of the Spine with, by R. U. F. Kynaston 241
Franklin, Rev. Sidney, Appointed Free Church Chaplain 349

G

Gastroenterology, Congress on .. 60
Gibson, Charles S., Death of 132
Obituary 133
Giddey, W. Denys, Dare Quam Accipere 32
Glimpse of American Obstetrics and Gynæcology, by T. L. T. Lewis .. 312
Good English 143
Golf 364
Dental Staff *v.* Students .. 228, 463
Graham-Smith, G. S., Obituary .. 468
Guy's Diary .. 12, 33, 57, 79, 82, 118, 145, 165, 186, 204, 210, 247, 269, 280, 338, 347, 354, 368, 397, 444, 453, 487, 492
Guy's Hospital Biennial Dinner 82, 188, 288, 348, 392
Christian Union 426, 506
Clubs' Union Accounts, 1949–50 .. 462
Budgets, 1950–51 463
Dental School, Annual Clinical Meeting 41, 55, 80a, 128
Gazette, copies required 426
Index, 1949 130
Ladies' Association 207
Music Club 94
New Telephone System 200
Nurses' League, Annual Meeting .. 226
Reports, Contents, 1949, Vol. 98 40, 168
Contents, 1950, Vol. 90, Part I .. 230
Contents, 1950, Vol. 99, Parts II and III 465
Token, by H. St. John Rumsey .. 225
Guy's North Wales Dining Club .. 448
Science Club 272
Theatre Club, "While the Sun Shines" 100
and the West Indies 184

H

Hæmolytic Disease of the Newborn, by J. Holmes 414
Hancock, W. C., Obituary 301
Harvest Thanksgiving 349
Hill, William, Richard Bright—A Bio-Bibliography 373, 393, 419, 439, 454, 472
Hilton, John, by H. J. B. Atkins .. 428

PAGE

Hockey 425
Dance 58
Folkestone Easter Festival 166
Past *v.* Present 488, 505
Results .. 58, 78, 103, 130, 445
Women's (Inter-Hospitals Cup Final) 166
Reports :
v. Birmingham University .. 463
v. Gravesend 463, 489
v. Middlesex Hospital (Inter-Hospitals Cup, 2nd Round) 103
v. Orpington 445
v. South Saxons 39
v. United Services (Portsmouth) .. 78
v. Wallington 463
v. Westminster Hospital (1st Round Inter-Hospitals Cup) 58
Holland, Roger, The Oral Manifestations of Some General Systemic Diseases 62
Holmes, J., Hæmolytic Disease of the Newborn 414
Honours (See also Awards)—
Independence Day, Burma 150
Birthday 272
New Years' 20, 40
Housden, Leslie, The Care of Children 252
Hughes, Ernest Cranmer, Death of .. 307
Obituary 308, 340
Hunt's House, Fire at 82, 105
Hypertension, Recent Advances in the Pathogenesis of Essential, by R. G. Walton 384, 398

I

Illustrations, Guy's Chapel 311
Hunt's House 119
Residents' Play 95, 99
John Ryle 84
by Sugy 257
"Waiting" 11
Joseph Henry Whitbread 43
Independence Day Honours, Burma .. 150
Influenza, Natural History of, by Professor Perrin H. Long, Clinical Lecture 292
Inguinoclasis, by Sir Heneage Ogilvie 500
Innocents Abroad, or a Tale of Two Students 201
Innominate Club Dinner. 188
Irvine, R. E., Antibiotics—Some Recent Advances 355

J

Joseph, J., Appointed to the University Readership in Anatomy 20
Joyce Green Hospital, Reunion .. 207

K

Kauntze, Ralph, Peyronie's Disease and Proctalgia Fugax 23
Kynaston, R. U. F., On Osteoporosis of the Spine with Spontaneous Fracture, by R. U. F. Kynaston .. 241

L

Lawn Tennis Club 347
Annual General Meeting 390
Results 268
v. Westminster Hospital (Inter-Hospitals Cup) 268
Lawrie, R. S., Small Bowel Obstruction, Clinical Lecture 106
Lewis, T. L. T., A Glimpse of American Obstetrics and Gynæcology 312
Life of a Dentist, by H. C. Visick .. 449
Lister, Joseph, and the Beginnings of Modern Surgery, by H. C. Cameron 67

PAGE

Liver, Natural History of Certain Viral Infections of, by Professor Perrin H. Long, Clinical Lecture 273
London Teaching Hospitals, Boards of Governors 230
Long, Professor Perrin H. Natural History of Certain Viral Infections of the Liver, Clinical Lecture .. 273
The Natural History of Influenza, Clinical Lecture 292
Visit of, from Johns Hopkins Hospital 189
Longmore, D. B., Travel Sickness .. 237

M

MacKeith, R. C., Minor Maladies of the Nursling, Clinical Lecture 190
Maclean, K. S., Appointed Assistant Physician, Guy's Hospital 301
Marriages .. 20, 40, 104, 150, 168, 188, 230, 250, 290, 322, 366, 406, 490
Medical Film Makers 80a
Research Council. Rockefeller Travelling Scholarships in Medicine 366
Medico-Legal Cases, Three, by Sir Sidney Smith 326
Minor Maladies of the Nursling, by R. C. MacKeith, Clinical Lecture .. 190
Mixture as Before, by L. G. Morey .. 281
More New Paint 193
Morey, L. G., The Mixture as Before .. 281
Morgan, O. Gayer, Ocular Tuberculosis Clinical Lecture 177
Music Club 144
Music and Migraine, by H. St. H. Vertue 350

N

Natural History of Certain Viral Infections of the Liver, by Professor Perrin H. Long, Clinical Lecture .. 273
Natural History of Influenza, by Professor Perrin H. Long, Clinical Lecture 292
Neurosurgical Unit, Guy's-Maudsley .. 505
Murray A. Falconer appointed Surgeon to 467, 490
New Years' Honours 20, 40
Notes on the Investigation of Sudden Death, by F. S. Fiddes 336
Notices—
Appointments (See also Appointments) 426
The Chronic Running Ear 446
Department of Surgery 321
Guy's Hospital Christian Union .. 40
Pupils' Physical Society 20
S.C.M. 390
St. Luke's Day 390
Society of Apothecaries of London 20
Students' Health Service, Mass Miniature X-Ray 426
University of London 20
University of Oxford 20
Nurses' Dance 12
League, Guy's Hospital, Annual Meeting 226
Swimming Gala 404, 425
Nursing News 404
School of, ... 403
Nursling, Minor Maladies of the, by R. C. MacKeith, Clinical Lecture .. 190

O

Obituary, Surg. Capt. Robley Browne 165
Arthur Robert Crowe 362
C. C. Elliott 164
Joseph Foreman 369
Charles Stanley Gibson 133
G. S. Graham-Smith 468
Walter Charles Hancock 301
Ernest Cramner Hughes .. 308, 340
Denis Leonard Power 165
John Alfred Ryle 83
Joseph Henry Whitbread 42

PAGE

Obstetrics and Gynæcology, American, A Glimpse of, by T. L. T. Lewis .. 312
Ocular Tuberculosis, by O. Gayer Morgan, Clinical Lecture 177
Ogilvie, Sir Heneage, America Revisited 194, 221, 244, 258
Inguinoclasis 500
On the Choice and Use of Books, by J.A.R. 469
Oral Manifestations of Some General Systemic Diseases, by Roger Holland 62
Order of St. John of Jerusalem .. 290
Osteoporosis of the Spine with Spontaneous Fracture, by R. U. F. Kynaston 241

P

Papers by Guy's Men .. 20, 40, 80a, 104, 150, 168, 249, 270, 290, 348, 365, 406, 446, 465, 490, 506
Park and Prospectus 74
Parsonage, M. J., The Scope and Limitations of Electroencephalography in Clinical Medicine .. 152, 170
Passim .. 1, 21, 41, 61, 81, 105, 131, 151, 169, 189, 209, 231, 251, 271, 291, 307, 323, 344, 349, 367, 391, 408, 427, 447, 467, 491
Pass List—
Conjoint Board :
D.C.H. 230
D.L.O. 60
D.M.R.-D. .. .. .. 60 ,348
D.O. 348
D.O.M.S. 348
D.P.M. 60
D.T.M. & H. 230
M.R.C.S., M.R.C.P. 19, 60, 150, 207, 306, 322, 466, 506
Royal College of Obstetricians and Gynæcologists :
D.R.C.O.G. 59, 230, 506
Membership 366, 446
Royal College of Physicians of London :
F.R.C.P. 207
M.R.C.P. 60, 230, 342
Royal College of Surgeons of England :
F.D.S. 250
F.R.C.S. 80a, 342, 366, 506
L.D.S. 19, 104, 167, 250, 306, 446, 466, 489, 506
Society of Apothecaries of London 19, 80a, 150, 230, 250, 348, 366, 489, 506
University of Cambridge :
M.B., Ch.B. 150, 306, 390, 446
M.D. 506
University of London :
B.D.S. 19
Diploma in Medical Radiology (Diagnosis) 167, 306
Diploma in Psychological Medicine 230, 506
Diploma in Public Health .. 390
M.B., B.S. .. 19, 59, 250, 348, 366 446, 490
M.D. 59
M.S. 19
University of Oxford :
B.M., B.Ch. 150, 230, 306, 446
D.M. 390
Penny, E. A., Trees 280
Peyronie's Disease and Proctalgia Fugax, by Ralph Kauntze, Clinical Lecture 23
Physiological Society, Comparative Physiology, Address by Joan Endean 317
Travel Sickness, by D. B. Longmore 237
Physiology, Comparative, by Joan Endean 317
Physiotherapists' and Radiographers' Dance 486
Postal Perplexity 362
Pot Belly in Children, by Mark Ravitch, Clinical Lecture 44

PAGE

Power, Denis Leonard, Obituary .. 165
Princess Tsahai Memorial Hospital—Addis Ababa 76
Printers' strike 344
Protalgia Fugax, Peyronie's Disease and, by Ralph Kauntze 23
Provost of Southwark, A Talk .. 188
Psychological Medicine, Department of, Guy's Hospital, D. Stafford Clark appointed Assistant Physician 467, 490
Pupils' Physical Society 20, 367, 423, 458, 484

R

Radiographers' and Physiotherapists' Dance 486
Radiotherapy Department 427
Ravitch, Mark, Pot Belly in Children, Clinical Lecture 44
Reading, Philip, The Chronic Running Ear, Abstract of Clinical Lecture .. 493
Recent Advances in the Pathogenesis of Essential Hypertension, by R. G. Walton 384, 398
Regional Hospital Boards 188
Residents' Ball 203
Play 96
Review—
Allen : The Sexual Perversions and Abnormalities 77
Almeyda : Major Symptoms in Clinical Medicine 285
Armstrong : Aids to Anatomy and Physiology 163
Austin : Handbook of Ophthalmology 17
Bailey : Pye's *Surgical Handicraft* 216
Baird : Combined Textbook of Obstetrics and Gynæcology for Students and Medical Practitioners 339
Banks : *The Common Infectious* Diseases 77
Beaumont : Applied Medicine .. 57
Bell : A Pocket Obstetrics 303
Bennett : Materia Medica and Pharmacy for Medical Students .. 246
Best and Taylor : The Physiological Basis of Medical Practice 382
Blackie : Child Health in Warm Climates 264
B.M.A. : Proceedings of the Annual Meeting, 1949 285
Bourne : How Your Body Works .. 19
Brown : Post Graduate Obstetrics and Gynæcology 309
Browning and Mackie : Text Book of Bacteriology 17
Bunnell : Surgery of the Hand .. 345
Burn, Finney and Goodwin : Biological Standardisation 487
Clark : Bacteriology and Pathology for Nurses 18
Clark-Kennedy : Lectures on Medicine for Nurses 246
Clements : Infant Nutrition : Its Physiological Basis 35
Coope : Wheeler and Jack's Handbook of Medicine 487
Cox : Among the Doctors 246
Crohn : Regional Ileitis 310
Crowe : Rheumatism 339
Crowther : A Manual of Physics .. 504
Cruickshank : Macdonald's Pocket Prescriber 382
Cyriax : Osteopathy and Manipulation 246
Danielli : Cell Physiology and Pharmacology 303
Doggart : Ophthalmic Medicine .. 35
Durand and Morgan : The Law and Ethics of Dental Practice 487
Elliot and Philipp : Hilton's Rest and Pain 443
Evans : Modern Practice in Anæsthesia 17

PAGE

Reviews—*continued.*

Ewen: Handbook of Psychology for Nurses 264
Fleming: Penicillin—Its Practical Application.. 34
Foote: Varicose Veins 186
Forbes and Mann: Clinical Examination of Patients 285
Gask: The History of Medicine .. 382
Gillison: A Histology of the Body Tissues 310
Glaister: Medical Jurisprudence and Toxicology 285
Guy's Hospital Reports, 1949, Vol. 98, Nos. 1 and 2 34
Hardy: Nursing 310
Harkness: Non-Gonococcal Urethritis 486
Henderson and Gillespie: A Textbook of Psychiatry 284
Hewer: A Textbook of Histology for Medical Students 186
Hill and Parr: Electroencephalography 487
Howat: Osteology for Dissectors .. 285
Jenkins: The Doctor's Profession.. 18
Keene and Whillis: Anatomy for Dental Students 303
Lockhart: Living Anatomy .. 382
McCurdy: The Rhesus—Its Medical, Moral and Legal Aspects 444
MacManus: *Hospital Administration* for Women 35
Marshall: Elementary Bacteriology and Immunity for Nurses .. 284
Minski: A Practical Handbook of Psychiatry for Students and Nurses 310
Murray: Biology 203
N.A.P.T.: Tuberculosis in the Commonwealth 77
Nicholson: Studies on Tumour Formation 302
Parish: Notes on Communicable Diseases of Laboratory Animals 303
Passmore and Swanston: Industrial Health 284
Pearce: Communicable Diseases and Their Nursing Care 310
Peel: Text-book of Gynæcology .. 487
Platt: Modern Trends in Orthopædics 302
Potter and Adair: Fœtal and Neo-Natal Death 339
Reading: Common Diseases of the Ear, Nose and Throat 303
Roberts: Aids to Public Health .. 216
Robson and Keele: Recent Advances in Pharmacology 303
Rumsey: The Stammerer's Choice 424
Russ, Clark and Pelc: Physics in Modern Radiology.. 504
St. Bartholomew's Hospital: Round the Fountain 203
Sanders: The Middlesex Hsopital.. 77
Sears: Medicine for Nurses.. .. 17
Sorsby: Medicine and Mankind .. 285
Vannotti and Delachaux: Iron Metabolism and its Clinical Significance 381
Vines: Green's Manual of Pathology 216
Waller and Kaatz: German-English Medical Dictionary 264
Wallis: Practical Biology for Medical and Intermediate Students 444
Walter and Miller: A Short Textbook of Radiotherapy 284
Warner: *Savill's System of Clinical* Medicine 504
Willcox: A Textbook of Venereal Diseases 339
Williams: Aids to Obstetrics .. 284
Wolff: Marihuana in Latin America 18
Rhesus Factor, by R. K. Allday .. 408
Rifle Club, United Hospitals Cup, 1950 321
Rite of Circumcision, by H. St. H. Vertue 217
Errata 240

PAGE

Robson, J. M., Title of Professor of Pharmacology conferred 270
Rowing 130, 166
Royal College of Physicians of London, Election of Censor 342
Royal College of Surgeons of England, Council 270, 466
Examiners 270
Rumsey, H. St. John, The Guy's Hospital Token 225
Ryle, John Alfred, Death of 81
Obituary 83
On the Choice and Use of Books .. 469
Resigns from Chair of Social Medicine in University of Oxford 20

S

Sailing Club 58, 103, 187, 205
Ogilvie Cup 269, 338
Salter, Alfred 3
School of Nursing 403
Smith, Sir Sidney, Lecture by.. .. 208
Three Medico-Legal Cases 326
Society of Apothecaries of London, Freedom of the Society .. 366, 489
Livery of 366
Some Reflections, by W. A. Bulleid .. 436
Correction of Author's Name to Arthur Bulleid 448
Southwark, Provost of, A Talk .. 188
Speech Therapy, Concepts of, by Leonard Willmore 145
Spinal Centre, Visit to a, by D. G. E. Alldridge 243
Spine, Osteoporosis of the, with Spontaneous Fracture, by R. U. F. Kynaston 241
Squash 19, 39, 130
Stafford-Clark, D., Appointed Assistant Physician, Department of Psychological Medicine .. 467, 490, 492
The Third Journey .. 13, 125, 160, 181
Students' Health Service, Mass Miniature X-Ray 168
Union Christmas Ball 471
Dance 390
Summer Ball 269
Sudan, Medical Work in 82
Sudden Death, A Note on the Investigation of, by F. S. Fiddes 336
Surgery, Department of 321
Surgical Department Library 19
Books Missing 207
Sutton, James E., Retirement of .. 325
Swimming Gala, Nurses' 404
Symonds, Sir Charles, Awarded *Raymond F. Longacre Award for 1949* 325
Systemic Diseases, Some General, The Oral Manifestations of, by Roger Holland 62

T

Telephone Installation 201
Theatre Club 442
The Mixture as Before, by L. G. Morey 281
The Office 54
The Rite of Circumcision, by H. St. H. Vertue 217
Errata 240
There was a Sound of Revelry by Night 203
Third Journey, by David Stafford-Clark 13, 125, 160, 181
Thirty Club Dinner, 1950 94
Three Medico-Legal Cases, by Sir Sidney Smith 326
Travel Sickness, by D. B. Longmore 237
Trees, by E. A. Penny 280
Trouville 299
Tuberculosis (Editorial) 131
Control, by A. J. Beale 135
Ocular, by O. Gayer Morgan, Clinical Lecture 177
Turner, Philip, Retirement of 362

PAGE

U

United Hospitals' Rifle Challenge Cup 321
University of London, Academic Council 342
Appointment 20
Appointment to the Senate 207
Examiners 60
Faculty of Medicine 342
Lecture by Dr. Keith Simpson .. 60
Professor of Pharmacology 270
Readership 366
Teachers 207
Recognition of 342
Travelling Fellowship 250

V

Valiant Patients, by M. D. Warren .. 286
Vertue, H. St. H., Music and Migraine 350
The Rite of Circumcision 217
Errata 240
Viral Infections of the Liver, Natural History of Certain, by Professor Perrin H. Long, Clinical Lecture .. 273
Visick, H. C., The Life of a Dentist .. 449
Visit to a Spinal Centre, by D. G. E. Alldridge 243

W

Walton, R. G., Recent advances in the Pathogenesis of Essential Hypertension 384, 398
Warren, M. D., Valiant Patients .. 286
Waters, Holidays and Cures, by Hugh Barber 232
West Indies, Guy's and 184
"While the Sun Shines," Guy's Theatre Club 100
Whitbread, Joseph Henry, Death of .. 41
Obituary 42
Willmore, Leonard, Concepts of Speech Therapy 145
Winston, J. H. E. 189, 210
Woolstone, A. S., Clinical Pertussis Treated with Methyl Atrophine Nitrate (Eumydrin) 380

Wells Library

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1604 *14th January 1950* *Ninepence*

PASSIM

" *When I'm alone* "—the words tripped off his tongue
As though to be alone were nothing strange.
" *When I was young*," he said ; " *when I was young. . . .*"

I thought of age, and lonliness, and change.

. . . . .

Siegfried Sassoon.

A WEEK or two ago we visited a friend whom we have always thought to be a really great character. He is a man, past seventy, a famous specialist in his day, now retired, yet far more active than many younger men. We spent an evening in his company and during most of the evening he talked. He led us through topic after topic, arguing, persuading, expounding, until our reeling brain was ' out of breath.' From his vast store of knowledge he discussed the Zoo which he knows so well, and then the skill of Leonardo, and the writings of William Morris, and the humility of Oliver Cromwell, and man's conflicting instincts of altruism and self-preservation, and then Moira Shearer's dancing and the cleaning of old pictures, and finally his magnum opus—a catalogue, a scientific work which will occupy the rest of his days and will even then, most probably, be unfinished. Walking home afterwards we fell to thinking about this secret which some men find—the secret of growing old successfully—a secret which eludes so many and which, we suppose, is really that of keeping mentally young.

Everyone knows that the true secret of growing old happily is to remain active for as long as possible, not to worry, to keep one's mind occupied, etc. There is, though, much more in it than that. It is no use telling someone of 60, 70 or 80 to remain active and keep their minds occupied. Tell it to them 40 years sooner and it might do some good. Nor would even that be enough, for whether in old age one has all the mellowness of a well-matured wine or only the acidity of a poor one will depend on many things, especially on one's earlier life. Alfred Adler used to judge a person by their success in three spheres : their work, their social relationships, their domestic lives. Success in all three spheres marked the well-balanced man. We feel that natural development in these three directions carried on through life are also the guarantee of a happy and contented old age. There will be constant change in them all and therefore need for constant readjustment. Retirement, the death and departure of friends, the marriage, or the absence of children are inevitable and must all be faced. And yet we feel convinced that any one who, like our friend, develops in these aspects of his life and continues to do so throughout his life—we feel that he can face old age in the expectation of contentment, of happiness and serenity. And if we, as doctors, by timely words offered earlier in their lives, can help to swing their course in this direction, surely we shall have done more for them than all the medicines we can give them in a meaningless, unhappy and troublesome old age.

Transatlantic Travel for Honoraries at Guy's is now a commonplace occurrence. By the end of last month Sir Heneage Ogilvie, Mr. Brock, Mr. Blaikley and Dr. Charles Baker had all returned safely, and we were very glad to have them back again. We wonder if they agree as strongly as we do with the concluding remarks of Professor Stead, writing on his visit to Jamaica (that) : " there is something to be said for the view that the best part of foreign travel is the return to England, even this England of 1949, with its rationing, controls, its crippling taxation, and its inability to earn enough dollars to maintain its standard of living."

The names of those Guy's men who were in the New Year's Honours list will be found on another page. We offer them our warmest congratulations.

We would also remind our readers that the annual subscription to *The Gazette*, 12*s*. 6*d*. per annum, post free, including the "Directory of Guy's Men (Medical and Dental)," as and when published, is now due and, if not already paid, should be forwarded to the Manager, The Gazette Office, Guy's Hospital, S.E.1.

The 1st Rugby XV. have just won their fifth consecutive match. We do not know how long they will keep it up—may it last long, but we feel a word of congratulation is especially due to their untiring captain, W. G. Davies. Commencing the season with a team which seemed incapable of winning a match and which soon became discouraged, he has led them back to a considerable degree of self-confidence. We congratulate him and hope that his and their efforts will continue to be rewarded.

Correspondence

One of our correspondents feels strongly on the subject of "El Hakim Pasha's writing." He, too, prefers to remain anonymous and use a nom de plume. His views are expressed in verse below :—

With apologies to the late Mr. Carroll.

"You are old, Hakim Pasha," the young man said,
"And your hair has become very white ;
And yet you persistently pester the ed.—
Do you think at your age it is right ? "

"In my youth," Hakim Pasha replied with a grin,
"I feared it might injure my brain ;
But now that I'm perfectly sure I have none—
Why I do it again and again."

"You are old," said the youth, "as I mentioned before,
And your writing should now be debarr'd ;
Your colon is crammed with the faults you deplore—
You are hoist with your own petard."

"Callous tripe," said the sage, "is forgiven to youth,
But, now I examine, I do wonder why
Cacæthes scribendi (a phrase most uncouth)
Should obscure the beam in my eye."

"QUIS CUSTODIET."

The Hockey Club

SIR,—I would like, through your columns, to thank all past members of the hockey club, who wrote from various parts of the earth, for their wishes for the success of the Annual "Past" and "Present" match and the Hockey Dinner. Their regret at their enforced absence from this season's function was shared by all members of the club.

We enjoyed having the Past members who did attend. We welcome them back again next season, and hope they will bring old team mates with them to avenge a defeat.

The dinner was excellent. Unfortunately Mr. Marston, President of the Club, and Mr. Morgan could not attend because of illness. However, we were fortunate to have Mr. Bulleid and Mr. Hooper, Vice-presidents of the Club, there.

Finally we are all grateful to Mr. R. A. Keable-Elliott for his kind offer to organise next season's "Past" team.

Yours, etc.,

E. A. MURRAY,
Captain, Guy's Hospital Hockey Club.

Dr. Alfred Salter

At Guy's we are sometimes inclined to remember the great and famous names of the past to the point of forgetting those more recently with us. Perhaps this is because there is no particular date or anniversary which is an occasion for remembering them. The publication of a book seems to us to be a good time for so doing, indeed some of you may have read in our December 17th edition a book review of Sir Arthur Hurst's Reminiscences, the review being written by one of his friends.

Another book about a great Guy's man has just been published: "Bermondsey Story: The Life of Alfred Salter," by Fenner Brockway. It is reviewed below. We feel that in addition to this review the remarks received by us in a letter from an eminent Guy's man deserve to be recorded. He remarks what a really great man Dr. Salter was. "Those of us who remember him from resident days used to regard him, both for what he was and did and for the letters and diagrams he sent up with patients to the Hospital, with respect bordering on reverence.

By combining his science, his clinical wisdom, his socialist idealism and his faith as a member of the Society of Friends, he succeeded in practising 'social medicine' at its very best. He made a contribution to the life and welfare of Bermondsey *and* to medicine of which every Guy's student should have some knowledge and be proud."

THE LIFE OF ALFRED SALTER.

By FENNER BROCKWAY. George Allen & Unwin. *Price* 15*s*.

Dr. Salter's life, remarkable and moving though it is to all, is of special interest to us for he was a Guy's man who lived and worked amongst the people whom the Hospital directly serves.

In 1895 he ended a prize-studded studenthood at Guy's with triple honours and the Gold Medal in the M.B. Finals: three years later he abandoned a brilliantly promising specialist career and became a poor man's doctor. Not only did he serve the people of Bermondsey as a general practitioner, but he also struggled untiringly to alter the social environment which contributed so much to their ailments.

The key to Salter's life lies in his deep sense of the Christian ethic: Christ's teaching led him, with inexorable logic he believed, to being morally a Puritan and a Pacifist, and politically a Socialist. He was a member of the Society of Friends, first treasurer of the Workers' Temperance League, a leader of the Peace Pledge Union and founder of the Labour Party in West Bermondsey, an area that he represented on the Borough Council, the L.C.C. and in Parliament.

In forty years of crusading he achieved little unadulterated success: substantial though the progress has been, Bermondsey is still not a Paradise; respected though his sentiments were (even in the House of Commons), Pacifism was an unheeded creed in two wars; and Prohibition is an even less popular cause to-day than yesterday. But the many blocks of flats that have replaced much of the slumdom of Bermondsey (a few can be seen from the Southern Railway trains), the trees that line the streets, the Solarium and Fairby Grange (Bermondsey's own convalescent home) are solid achievements. Only as a doctor was he entirely successful: his skill and personality evoked the highest respect and affection, and lay at the base of his political and moral influence.

Biography can be critical or descriptive. Mr. Fenner Brockway's book is self-avowedly the latter. This means that the reader must be self-dependent for an estimate of the importance of Dr. Salter's work and of the validity of his views (and they are recorded on almost every topic of the last forty years). It also means that the book tends to be sterile and too minutely informative. Nevertheless it is important as the story of a man of strong character and uncompromising spirit who brought great credit to himself (and to the Hospital that trained him) in the everyday world of ordinary people, the ultimately most important world of Vauban Street and Wilson Grove, S.E.1.

L.J.

The Disc Lesion

By NILS L. ECKHOFF.

A Clinical Lecture delivered at Guy's Hospital Medical School on 15th December, 1949.

LUMBAGO and sciatica are extremely common conditions. It is difficult to meet a group of three or four people of middle age, but that one or another has not suffered from either of these conditions. These have been treated variously by general practitioners, physicians and neurologists, orthopædic and neurological surgeons, physiotherapists, chiropractitioners and osteopaths, and even by believers in Abram's Box. Many are the methods that have been used. I thought I would attempt to review the subject for you as a not so disinterested observer.

Hurst (1943), in one of his last communications to the medical press entitled " The Treatment of Sciatica—an essay in debunking " after reviewing the methods that had been used during 40 years, says, " the patient should throughout be encouraged to expect rapid recovery, complete enough to allow a return to full duty within a fortnight of getting up. It will then be unnecessary to employ any of the forms of suggestion hitherto in use—injection into the nerve by the neurologist, the intervertebral space by the expert, or as near the nerve as he can get by the less expert, into the myalgic spots by those who believe in them, manipulation or a plaster case by two rival schools of orthopædic surgeons, removal of herniated intervertebral disc by the neurosurgeon and of the lateral intervertebral joints by Bankart, or the application of fuming hydrochloric acid by the magician." He goes on to say, " without the simple psychotherapy involved in promoting the expectation of rapid recovery followed by rapid rehabilitation, there is a great tendency for the pain and disability with the abnormal gait and posture to be perpetuated and exaggerated as a hysterical symptom." Again, " the few patients who do not get well after a month of complete rest in bed are among those who give a history and show physical signs of root pressure. A further period of complete rest may lead to recovery, but if there has been little or no improvement they should be referred without further delay to a neurosurgeon, who will cure them by removal of the herniated intervertebral disc ! " Also, " it is, however, just as important after operation as during treatment by rest to encourage the patient to believe that his recovery will be rapid and complete, as there is a considerable tendency for a minor degree of pain or weakness to persist as a hysterical condition after the organic cause has been removed." Hurst did not seem to realise how inconsistent he was. Whilst pouring scorn on others for using " forms of suggestion," he ended by advising psychotherapy himself. Few sufferers from sciatica would agree that this would be effective in relieving the pain. One author, however, suggests that sciatica may be due to matrimonial infidelity. (Robertson, 1944).

There are many to-day who claim that almost all cases of lumbago and sciatica are due to disc lesions (Burns and Young, Symonds (1943), Crisp, Cyriax). There are others who would not agree (Good, Bankart, Ross Smith).

My attention was first focused on the disc lesion by the writings of Beadle, who, shortly after his House appointments at Guy's, went to Dresden as Radcliffe Travelling Fellow to study the work of Professor Schmorl in the investigation of 7,000 spines. Beadle's monograph is well worth study to-day. It is excellently produced and most beautifully illustrated. He draws particular attention to prolapse of the nucleus pulposus into the body of the adjacent vertebræ, and its possible relation to spinal diseases. Such prolapses occur in 38 per cent of spines examined. They are common in males under 60 and in females over 60.

Posterior prolapses were also studied. These occur in 15 per cent. of spines examined with a higher incidence in the older age groups. They were not seen under 30. But Beadle stated that posterior prolapses rarely gave rise to symptoms. It must, however, be remembered that Schmorl was working on post-mortem specimens. Since we now know that disc protrusions may be " hidden " during life, it is not certain that they would be found post-mortem.

It was left to Barr and Mixter (1934) to suggest that such posterior prolapses might produce severe neurological symptoms, and to describe 19 cases relieved by operation. Other authors (Goldthwait, 1911, Middleton and Teacher, 1911, Dandy, 1929) had suggested a similar cause in isolated cases. From then onwards the snowball grew and gathered momentum, so that just before and during the last war, thousands of operations were done for nuclear prolapse. They were mostly done by laminectomy or by an interlaminar approach, though some have even removed the disc from in front by a transperitoneal approach (Lane and Moore). The literature on this subject has become immense, and I cannot claim to have studied more than a fragment of it.

Let us for a moment study the anatomy. Each intervertebral disc is a fibrocartilaginous structure with an almost central soft portion, the nucleus pulposus. It calls to mind the soft centre of a golf ball, and is obviously adapted to its function as a buffer.

Fractures in the hyaline cartilaginous disc above and below the nucleus pulposus, and in fibrocartilaginous rim can occur, allowing the nucleus to prolapse either into the adjacent body—or into the spinal canal. We will devote our attention to the posterior prolapse only. This usually occurs to one or other side of the strong posterior longitudinal ligament, and is therefore in a favourable position to press upon the emerging nerve root. If the rim is fractured in two places the intervening fragment of the disc may itself be displaced backwards and cause a more central pressure. The prolapse need not be very large. The nerve root may even be able to slip away from the direct pressure of a small prolapse, but may yet be subject to friction. The lesion is commonest in the space between L4 and L5, and between L5 and S1, though prolapse in the cervical region is said to be responsible for certain cases of neuralgia in the arms.

Symptoms.

Let me now describe the symptoms that may occur in a typical case. Lumbago—pain in the lumbar region—may be but an exacerbation of a chronic backache, but is usually noted for its extremely sudden onset. A person bends down to open a drawer, leans over to open a car door or makes a similar minor effort, and is suddenly struck with intense pain in the back. I can remember playing a shot out of a bunker and being struck suddenly at the end of the swing, unable to bring the club down again. This provoked much mirth amongst the onlookers. (The ball, needless to say, was by this time on the green). I can remember the same thing happening to my partner at golf, and have known it happen at other games. On another occasion I was swimming from a yacht, and was suddenly stricken with pain whilst drawing myself into the boat. I fell back into the water and hate to imagine what might have happened had not my friend pulled me out. It is quite possible that drowning accidents in otherwise fit people may be due to such a cause.

The relationship to muscular exercise or injury is noted in rather less than half the cases—the symptoms may first come on during sleep—and in some instances there is a latent period of three or four days. In others no history of this sort is obtained. A friend came to visit me when I was stricken and boasted that he had never taken any form of muscular exercise. A few days later it was my turn to smile when I noticed a distinct awkwardness in his gait.

The pain is intense, and immediately produces spasm of the lumbar muscles. Movement of a part far removed from the spine may reproduce the pain. I can remember being quite unable to lift a spoon to the mouth, and having to take food off the mantelpiece. On another occasion it was quite impossible to get into bed, and a mattress had to be placed on the floor for several days. Coughing and sneezing produce violent and instantaneous pain, and the combination of lumbago and acute coryza is one of the most unhappy things that can happen to one. Movements have to be made very slowly and carefully. No other person can help much, but when in bed, a pulley over the bed, such as has been in use at Guy's since the days of Astley Cooper (Eckhoff, 1939) and no doubt before, is quite invaluable.

Lumbago usually passes off in 10–21 days but may recur from time to time over a period of years, with backache more or less constantly in between.

Sitting still—as in a cinema—is likely to produce pain. Often a cushion in the lumbar region is found to be helpful.

After many years sciatica may occur. This transition from lumbago to sciatica is now recognised as very common. Similarly, as the sciatica improves, lumbago may once more be noticed. It is suggested that lumbago is due to pressure on the posterior longitudinal ligament, or on the dura, whilst sciatica is due to pressure on the nerve root itself. Some may of course get sciatica first, or relatively early in the history. Some doctors object to the term sciatica, but it has been used for so long to indicate a clear cut clinical picture, that it will probably survive.

Sciatica indicates pain going down the leg, through the buttock, the back of the thigh, the lateral part of the leg to the foot. The exact distribution of the pain will vary according to the nerve root involved (*vide infra*). The pain is severe and spontaneous, but made worse by activity, and somewhat relieved by rest. That is to say, even complete immobilisation (in a plaster spica) will not necessarily cause the pain to disappear at once. It may even become worse. Similarly, the pain is not immediately relieved by ordinary bed rest, and actually gets worse during sleep. Pain on waking may be so severe that the patient hates going to sleep. This anomaly is explained by the theory that muscular spasm which immobilises the spine, relaxes during sleep, and allows the diseased parts to move upon one another. (This is similar to the explanation usually given of the starting pain of early tuberculous joint disease). There may be diminution of sensation with patches of hyperalgesia in an area of skin corresponding to the segment (dermatome) involved. This is most easily detected below the knee, but according to Falconer, Glasgow and Cole (1947) may be made out, when carefully tested, running from the spine to the foot. Falconer finds this dermatome pattern does not agree with that of Foerster or Head (1893) but corresponds more with that of Thorburn (1893) or Keegan (1943). Accordingly the 5th lumbar dermatome runs from the iliac crest down the anterolateral aspect of the thigh and leg to the middle three toes, dorsal and plantar aspect; whilst the 1st sacral dermatome runs from about the level of the great trochanter, down the lateral and posterior aspect of the thigh and leg, along the lateral side of the foot and taking in the heel and most of the sole.

In addition to spontaneous pain and hypoalgesia which is usually described as belonging to a dermatome pattern, there is deep muscular pain, of a cramp-like nature, and deep muscular tenderness. This may be so severe as to produce intermittent claudication, *i.e.* the inability to walk more than a few yards without taking a rest. It used to be taught that the sciatic nerve was tender in this disease. If the nerve is pushed to one side it can be demonstrated that the tenderness is in the muscles (Le Vay, 1944). Elliott (1944) has by electromyographic studies come to the conclusion that there is a continuous discharge of action potentials from such tender muscles, and that "spasm" is probably the source of the pain and tenderness in the muscle. Suffice it to say that the use of the term "dermatome" leads one to think of the disorder of sensation as being only skin deep. It might be more cogent to think in terms of the myotome.

Further examination shows that the ankle jerk is not infrequently diminished or lost, the knee jerk seldom. There may be wasting of muscles of thigh and leg and weakness, easily demonstrated in the toe extensors and foot extensors. Percussion over the spine may be painful.

Straight leg raising is diminished (Lasègue's sign), and whereas this was thought to be due to stretching of the sciatic nerve itself, is more likely to be due to movement of the spine on flexion. Other signs have been described by Naffziger, Burns and Young, Ober, Ely, etc. The extent to which the opposite leg can be raised without producing pain is a helpful index of the progress of the condition.

The lower lumbar spine will show the same changes as were noted in lumbago—namely marked muscular spasm, loss of normal lumbar curve (*i.e.* kyphosis), and possibly scoliosis. Movements of the spine are restricted—notably flexion and extension, but sideways bending may also be painful.

Burns states that sideways bending is free. X-ray changes are not always present. It may be possible to determine some alteration in the alignment of the bodies of the vertebræ, or some diminution of the disc space. Congenital anomalies are found in a small proportion of cases, but are not thought to have any particular significance.

What is the Evidence in favour of a Disc Lesion?

Pathological.—We have already seen from the work of Schmorl, described by Beadle, that prolapse of the nucleus purposus is a pathological entity. Prolapse occurs into the body of the vertebra in 38 per cent. of spines examined, and into the spinal canal in 15 per cent. Flexion of the spine narrows the anterior part and widens the posterior part of the disc space. This produces the best circumstances for a disc prolapse to occur. Subsequent extension of the spine causes the prolapsed disc to be nipped. This probably explains why both flexion and extension produce pain in this condition. (Note that in a " hidden " disc the prolapse can be made evident at operation by hyper-extension of the head—Falconer, 1947). Posterior prolapses may be central or lateral, and from a study of the anatomy of the lower lumbar region it is possible to work out which nerve roots may be subjected to pressure. At any particular level the more medial prolapse will be in a position to press upon the lower nerve. Thus in the disc space between L4 and L5, a medial prolapse could press on the 5th lumbar nerve root. Whereas a lateral prolapse could press on the 4th lumbar nerve root. (Actual neurological localisation may not be quite as simple as this). The pressure on the nerve roots produces œdema and swelling (radiculitis) which can be demonstrated in myelograms (Falconer et Alia, 1946). When every other part of the body is apparently still a small movement of the head, as in drinking a glass of water, may produce instantaneous pain in the leg. This, and the instantaneous pain on coughing, may be due to a sudden alteration of cerebro-spinal pressure, or explained by the complex interrelation of all mucular movements. (Coughing produces intense pain in anal hæmatoma or fissure). The fact that the pain can be modified by flexing the hips is difficult to explain. Sciatica has been known to follow diagnostic lumbar puncture, and a case has been described, as recently as this week, by Wilson (1949), in which a typical disc protrusion was revealed at subsequent operation.

Myelographic.—Although many clinicians do not use this method to-day, Falconer et Alia (1946) (amongst others) has found it useful. It is possible to demonstrate filling defects in the thecal outline, which correspond to the site at which pressure is anticipated, subsequently shown to be due to protrusions of the disc.

Operative.—Some surgeons have reported a high incidence of negative explorations, but others (Falconer, McGeorge and Begg, 1948) have found lesions in all cases subjected to operation. (The possible reasons for this discrepancy are discussed later).

The fact that epidural injections (into the sacral canal) will often relieve lumbago or sciatica is thought (by Cyriax, 1945) to confirm the supposition that the pain is due to pressure on the dura in lumbago, and on the nerve roots in sciatica.

What is the Evidence in support of other theories?

Sciatic neuritis.—Symonds (1943) says that " the vision of an inflamed and swollen sciatic nerve . . . has never been granted to human eyes " (except in one post-mortem recorded by Denny Brown following shortly after injection of oxygen).

Fibrositis.—The theory is that the pain in the leg is a reflex from patches of fibrositis in the back or the gluteal region. Support of the fibrositic theory is found in the fact that many patients have had attacks of pain in other parts of the body, *e.g.* neck, scapular region, pectoral and intercostal region, and from the fact that injections of novocain into tender spots, called fibrositic nodules, apparently relieves this pain. Good (1942), who supports this theory vigorously, claims excellent results in 64 cases out of 65. He does, however, supplement his injections with other methods of treatment—rest, immobilisation, etc. Kellgren (1941) also supports the fibrositic theory. Ober (1941) and Heyman (1941) and Freiberg (1941) actually recommend cutting fascia (gluteal) or muscle (piriformis) to relieve sciatic pain.

Whereas it is possible that certain cases of backache may be due to such a cause, it is difficult seriously to believe that it can account for pain in the leg, or that cases with true neurological signs (loss of ankle jerk, paræsthesia, etc.) can be accounted for on this basis.

Arthritis of lateral intervertebral joints.—This is a difficult theory to prove or disprove by radiological examination, for the lateral joints are not easily demonstrated. Badgley describes the changes that may be found in these joints, but admits that as an explanation of sciatic pain it is more a theory than a fact. The theory has been supported by one eminent surgeon (Bankart, 1943) who claims excellent results from operations on these joints. No doubt such operations would result in considerable fixation of the spine, and this in itself would relieve symptoms.

Disorder of the lateral intervertebral joints is also the basis of the " osteopathic lesion," and relief of symptoms is claimed to follow manipulation of these joints (Fleming). There is no doubt that manipulation has helped many people with lumbago or sciatica, but it is not possible to manipulate the lateral intervertebral joints without influencing the central joints.

Sacroiliac Strain.—Many cases of backache were thought to be due to this rather hypothetical lesion, and were treated by manipulation and physiotherapy, with indifferent results. To-day the diagnosis is not frequently made (Crisp, 1945), although the theory is revived in a recent journal (Eastwood, 1949).

What is the Rational Treatment of Lumbago or Sciatica?

Although it may appear at first sight that there is some difference of opinion between experts, this is more apparent than real. Most authorities believe that the disc lesion is the basic cause of the condition. It is also apparent that a large number of people recover from this condition without any serious medical treatment (Symonds, 1948). One has been advised by well-wishing friends to wear wool next to the skin, to tie a piece of red silk around the abdomen, to carry a piece of nutmeg in the pocket, and to put elastic bands around the ankles. No doubt in mild cases any of these remedies will suffice.

In more severe cases the basis of treatment is rest. (Symonds, 1943, Burns and Young, Crisp, Cyriax, 1943, Falconer et Alia, 1948). The spasm of the lumbar muscles is Nature's attempt to secure this. It may require bed rest for four to six weeks. The patient is usually allowed to find the position most comfortable for himself. This may well be a half sitting position, like Fowler's position, and a rigid bed-rest to support the pillows is necessary, otherwise one can gradually slip into more acute flexion which is painful. Similarly too much extension is painful. It is of course difficult to sleep sitting up, but one learns this in time. Although the pain may be very severe, it is remarkable how it can be relieved by Veganin grs. 10.

It should be noted that absolute rest for the spine is impossible to obtain in bed. (Hurst advised a plaster spica in bad cases, and whilst this had excellent results in some, in others it was found intolerable). The ordinary necessities of bedmaking, shaving and washing, and the uses of the bed-pan, produce quite definite movements of the spine which the patient would prefer to avoid. The bed-pan is particularly heinous. For, quite apart from the unnatural position required, any straining is extremely painful, and the patient probably does himself less harm to be allowed to use a commode by the side of the bed. Isogel or some similar laxative will help to procure easy evacuation. I have previously mentioned the value of a pulley over the bed, which enables the patient to alter his position without undue spinal movement, and therefore without pain.

After a period of rest in bed many cases will be considerably improved, and may then be allowed to get up and move about with the spine supported in a plaster jacket. There are some who use this as the mainstay of their treatment (Crisp, 1945). It is nevertheless difficult, if not impossible, to immobilise completely the lower lumbar spine with a jacket applied from the iliac crests to the nipple line. When sitting in a chair the lower back part

of the jacket is pushed up, and may actually produce pain (" the tail wagging the dog "). But a small Dunlopillo cushion is an excellent standby in such circumstances, whilst a low armchair is to be avoided. It is remarkable how much the sacrum and lower lumbar spine moves forwards, when the hips are acutely flexed, as in a low chair (Kuhns, 1941). The natural successor of the plaster jacket is a well-fitting belt, and this may be needed for many months. These methods of treatment are not so unpleasant as some people think. In fact most sufferers take good care to see that a belt (or even a plaster) is not far away at any time. Any slight backache calls for the immediate reapplication of the support. Even if immobilisation is not absolute, the support suffices to remind the patient to be cautious. Eventually the symptoms tend to diminish and even disappear under this line of treatment. Gradually flexion, extension, and lateral movements of the spine return without producing pain. It is difficult to know quite what pathological processes occur to produce this happy result. These are various theories :—

1. That the prolapse returns within the body of the disc, and fibrous tissue repairs the breach of the annulus.
2. That " fibrous ankylosis " occurs between the bodies of the vertebræ, thus restricting movement.
3. That the prolapse separates and is ultimately absorbed.
4. That the prolapse may continue to exist (Falconer, 1946) but the associated neuritis disappears.

Operative treatment.

Most authorities agree that in obstinate cases, operation is indicated. This is (to-day) an extradural procedure. One or two laminæ may be removed (or none at all), the spinal cord gently displaced and the posterior aspect of the disc examined. The vertebral veins may be a great nuisance, but hæmorrhage can be controlled by pledgets of lint, on long black thread, and to some extent by posture. The appearances of the disc may vary considerably, and this no doubt accounts for variations in the number of successful explorations. Particular note must be made of the " hidden disc." Falconer (1948) states that but a small extension movement of the head and neck is sufficient to cause such a " hidden disc " to prolapse. Dandy (1941) showed that if the prolapse was not apparent at operation, probing may reveal the weak spot in the annulus. Having found the lesion a sufficiency of disc material must be removed. Both discs (L4–5 and L5–SI) must be explored in every case, for double lesions are not uncommon. Ample curettage of the disc or discs affected is indicated, or recurrence is likely. One case has been reported of damage to the inferior vena cava.

Some recommend immediate spinal fusion, but most do not advise this. Some recommend a month's rest in bed afterwards, others a lesser period. Most advise post-operative exercises to improve the tone of the sacrospinalis muscle.

The more cautious advise a support for some months after operation. Some say a fibrous ankylosis between the bodies is the disideratum. It is not easy to visualise this occurring unless practically all the disc is removed.

Results of Operation.

Enough time has now passed to make one realise that the results of operation are not always satisfactory. The most optimistic claim 70 per cent. to 80 per cent. good results (Burns and Young, 1945, Falconer, 1948). One writer recently said that operation does not benefit more than about one half of the cases. (Lewey, 1949). The differences between these results may be due to differences of assessment, or to differences in operative methods and findings. I have mentioned that some surgeons do not always find a damaged disc, whilst others apparently never fail. Some may be content to examine one disc, others will always examine two. Lewey recognises hidden, bulging, ruptured, herniating, protruded and slipped discs and says good results are to be expected in herniating discs, but not in bulging or slipped discs. Falconer recognises projections, extrusions, intermittent prolapses and scarred discs. There can be no doubt that a more accurate understanding of the pathology of this condition is required before operation can be heartily recommended.

Other Methods of Treatment.

Epidural injection of procain through the sacral hiatus was used at one time, and met with some success, but has now been largely discontinued. It is difficult to understand its action. But it presumably allows the nerve root to slip away temporarily from the site of pressure.

Injections of saline, procaine, or oxygen into and around the sciatic nerve have also been discontinued. Stretching of the sciatic nerve presumably produced results by indirect manipulation of the spine. Gross manipulation of the spine under anæsthesia has also lost favour owing to one or two serious mishaps reported. Since a prolapsed disc can be made to pop in and out by movements of the spine (Falconer et Alia, 1948), one cannot deny the possibly beneficial effects of manipulation without anæsthesia, such as is practised by manipulative surgeons. I was impressed with the ideas of one who put the patient on some sort of a rack before manipulating, thus distracting the spinal bodies. We know that weight extension applied to the legs will often relieve an acute attack, which is only to be expected if we believe in the disc lesion.

Of other methods of treatment I would refer you once again to the remarks of Hurst (vide supra), although I cannot entirely agree with his conclusions.

Prophylaxis.

Heavy work should be avoided, and stooping should always be accompanied by flexion of the knees. It may be extremely difficult to touch one's toes or put on one's shoes and socks, and such efforts are better avoided. Cyriax advises that slight pain in the back is a warning that the individual should heed by lying down for a few hours. To attempt to "work it off" is disastrous. A belt should be available for anyone who is inclined to get recurrent attacks.

Prognosis.

One commonly hears it stated that a patient who has recovered from one severe attack of sciatica is unlikely to get another. I do not think one can bet on this. It may well be that such a person is more cautious, and avoids foolish movements. It is, however, true that with advancing years the disc becomes somewhat dessicated and less elastic (Beadle) and the spine more rigid, and for these reasons one can look forward to a somewhat more comfortable old age.

REFERENCES.

Bankart (A. S. B.). *Proc. Roy. Soc. Med.*, **36,** 1943, 329.
Barr (J. S.) and Mixter (W. J.). *New Engl. J. Med.*, **211,** 1934, 210.
Barr (J. S.) and Mixter (W. J.). *J. Bone Jt. Surg.*, **33,** 1941, 444.
Beadle (O. A.). *Spec. Rep. Ser. Med. Res. Coun., Lond.*, 1931, No. 161.
Burns (B. H.) and Young (R. H.). *Lancet*, **2,** 1945, 424.
Crisp (E. J.). *Lancet*, **2,** 1945, 422.
Cyriax (J.). *Lancet*, **2,** 1945, 427.
Dandy (W. E.). *Arch. Surg.*, **19,** 1929, 660.
Dandy (W. E.). *J. Amer. Med. Assn.*, **117,** 1941, 821.
Eastwood (N. B.). *Brit. Med. J.*, **2,** 1949, 1235.
Eckhoff (N. L.). *Guy's Hosp. Rep.*, **89,** 1939, 9.
Elliott (F. A.). *Lancet*, **1,** 1944, 47.
Falconer (M. A.), Glasgow (G. L.) and Cole (D. S.). *J. Neurol. Neurosurg. Psychiat.*, **10,** 1947, 72.
Falconer (M. A.), Begg (A. C.) and McGeorge (M.). *Brit. J. Surg.*, **34,** 1946, 141.
Falconer (M. A.), McGeorge (M.) and Begg (A. C.). *Brit. J. Surg.*, **35,** 1948, 225.
Falconer (M. A.) and Begg (A. C.). *Brit. J. Surg.*, **36,** 1949, 225.
Fleming (E. G.). *Med. World*, **Vol. 67, No. 4,** 1947, 106.
Goldthwait. *Boston Med. Surg. J.*, **164,** 1911, 365.
Good (M. J.). *Lancet*, **2,** 1942, 1225.
Hurst (A. F.). *Brit. Med. J.*, **2,** 1943, 773.
Jackson (W. P. U.). *Brit. Med. J.*, **2,** 1943, 776.
Kellgren (J. H.). *Lancet*, **1,** 1941, 561.
Lane & Moore. *Ann. Surg.*, **127,** 1948, 537.
Levay (A. D.). *Lancet*, **1,** 1944, 116.
Lewey (F. H.). *Surg., Gynec., Obstet.*, **88,** 1949, 592.
Middleton & Teacher. *Glasg. Med. J.*, **76,** 1911, 139.
Ober (F. R.), Heyman (C. H.), Freiberg (A. H.) and Kuhns (J. G.). *J. Bone Jt. Surg.*, **33,** 1941, 409–496.
Robertson (G. G.). *Lancet*, **1,** 1944, 91.
Ross Smith (N.). *Brit. Med. J.*, **1,** 1944, 90.
Symonds (C. P.). *Med. Annu.*, 1943.
Symonds (C. P.). *J.R.A.M.C.*, **91,** 1948, 137.
Symonds (C. P.). *Trans. Med. Soc., Lond.*, **65,** 1949, 23.
Wilson (J. N.). *Brit. Med. J.*, **3,** 1949, 1334.

"WAITING"

(By Sylvia Treadgold)

Nurses' Dance

JANUARY, 3rd, 5th, 1950

This year two Dances were given so that every one could go. They were far too good to be given a merely formal description. In fact they were so enjoyable that we doubt if better ones were ever given. It is not often that nurses or students, or for that matter, many others, attend a Ball as elegant as this one. There was no one feature to which we can point as the reason for its success. It was neither the excellence of the two dance bands, nor the decorations and arrangement of the rooms, nor the refreshments, nor any one of a dozen other features. It was all of these combined and a lot of excellent unseen organisation which contributed to its success. This and 200 or 300 guests who, if they were like us, had not yet reached the age when they no longer get excited about going to parties.

The guests were met by the Matron and Lord Cunliffe, our host and hostess. It must have been with great pleasure that they watched the obvious enjoyment of their guests and perhaps this is a good place to thank them again for such a delightful dance.

With two bands to dance to there was no excuse, nor inclination for not dancing, and at the height of the evening when we were there both rooms were full—full, of a splendid array of beautifully gowned women and what some wag called "black-coated workers." It has always struck us as natural that nurses whom we see about the Hospital should look attractive in long evening dresses, but that our fellow students (whom we well know to be scruffy and tousled "rough-necks") should suddenly become transformed by evening dress into presentable and occasionally good-looking citizens always amazes us—and delights us—just as much as did everything else at the Nurses' Dance.

Guy's Diary

ACADEMIC

January		
		Exhibition. Surgical Department. "Pott's Disease."
16th.	1.00.	Mr. Batchelor. Clinical Lecture. "The Management and Surgical Treatment of the osteoarthritic joint."
	3.30.	Dr. Forman. Demonstration of Skin Diseases. Preclinical Classroom.
	5.00.	Department of Child Health. Film Show. "Journey into Medicine." Anatomy Theatre.
19th.	1.00.	Sir Heneage Ogilvie. Clinical Lecture.
	4.30.	X-ray Demonstration. Gordon Museum.
20th.	1.00.	Dr. Hampson. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
23rd.	(1 month).	Exhibition. Gordon Museum. "Social Treatment of the Tuberculous."
23rd.	1.00.	Mr. Atkins. Clinical Lecture.
	3.30.	Dr. Forman. Demonstration of Skin Diseases. Preclinical Classroom.
24th.	12.00.	Medical Department. Neurological Demonstration. Preclinical Classroom.
	1.00.	Professor Spurrell. Clinical Lecture. "Hunger and Thirst."
26th.	4.30.	X-ray Demonstration. Gordon Museum.
	8.15.	Dr. H. C. Cameron. Address to Pupils Physical Society: "Joseph Lister and the beginnings of Modern Surgery." Anatomy Theatre.
27th.	1.00.	Dr. Hardwick. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
28th.	10.00.	Surgical Department. Clinico-Pathological Meeting. Anatomy Theatre.
30th.	1.00.	Dr. Hardwick. Clinical Lecture. "Hæmolytic Anæmia."
	3.30.	Dr. Forman. Demonstration of Skin Diseases.

OTHER ENGAGEMENTS

January	
18th.	Association Football XI. *v.* Royal Marines, Chatham. (Away).
21st.	Rugby. England *v.* Wales. (Twickenham).
	Association Football 1st XI. *v.* Old Stationers. (H.O.P.).
	Association Football 2nd XI. *v.* Reigate Priory. (Away).
	Hockey 1st XI. *v.* Woolwich Polytechnic. (H.O.P.).
	Hockey 2nd XI. *v.* Woolwich Polytechnic. (Away).
	Hockey 3rd XI. *v.* Midland Bank. (Away).
25th.	Association Football XI. *v.* Royal Dental & Charing Cross 2nd XI. (H.O.P.).
	Association Football University Hospital *v.* Oxford University. (H.O.P.).
28th.	Rugby XV. *v.* Devonport Services. (H.O.P.).
	Association Football 1st XI. *v.* Old Lyonians. (H.O.P.).
	Association Football 2nd XI. *v.* Old Lyonians. (Away).
	Hockey 1st XI. *v.* Ealing Dean. (Away).
	Hockey 2nd XI. *v.* Ealing Dean. (H.O.P.).
	Hockey 3rd XI. *v.* National Physical Laboratories. (Away).

The Third Journey

By DAVID STAFFORD-CLARK,
Massachusetts General Hospital, Boston, Mass.

(*Continued*)

IN the height of the summer, with the temperature running at about a hundred in the shade and the humidity rarely below 90 per cent., the hospital suffered a serious disaster. The iceman a friendly but usually quiet character, went mad. His burden, which was always considerable, had been increased by the failure of the hospital's own refrigeration plant which had necessitated the deliveries of quantities of block ice in bulk by an outside firm; his task then being to distribute this ice to every part of the hospital on trolleys which he pushed along the connecting underground passages. At first he seemed to be taking this in his stride; indeed, his reaction to his Herculean responsibilities was to become flamboyantly cheerful. Even when he went to the expense of having several hundred small cards printed with his name and bearing the inscription: "Yesterday is past; forget it. To-day is here; enjoy it. And to-morrow never comes," it seemed not to occur to anyone that there was anything gravely the matter. He distributed the cards lavishly on his round of the wards, where they were accepted with politely concealed surprise but no great suspicion. Three days later he began calling upon several of the visiting staff in their consulting rooms, without warning, and occasionally while they were interviewing patients, to explain that his trolley was the wrong size and had evidently been designed for a chimpanzee. At this stage he was ushered down to the Emergency Ward and the Psychiatric Resident was called to see him. He proved to be in a state of considerable excitement, and investigation of his blood and cerebral spinal fluid revealed that he was suffering from G.P.I. His departure for a state mental hospital was the occasion for an impassioned harangue on his part and very sincere regret on the part of the rest of us in the hospital.

The summer lasted well into September, when the Havard term began and we had our new batch of Fourth Year Medical Students to work in the Neuropsychiatric Service. Each of these young men, who are within a year of graduation, has already had a well-planned introductory course of lectures and demonstrations in psychiatry as part of his normal medical training, and undertakes the care of patients under supervision both in the Psychiatric Ward and in the Out-patient Department for a month during his final year. The only disadvantage of this arrangement in practice is the shortness of the time during which the student comes in contact with the patient to effect therapy; but as a university teaching measure, it has the very great advantage that it accustoms undergraduate students to the technique of interviewing disturbed or disturbing patients.

Several times during the summer I had had the opportunity on week-ends of sailing in the Gulf of Maine. Some of the doctors here are enthusiastic yachtsmen, and I was able to enjoy not only local sailing and racing in 20-foot racing craft, but also spent one week-end in a schooner on a cruise from Marblehead to Scituate Harbour, a distance of about 50 miles. Scituate, like so many of the towns and villages in New England, has retained the name originally given to it by the Indians. Some of these names are particularly fascinating: Cochituate, Cohasset, Neponset, Sawtucket, Popounessett, and Lake Chagogagogmanchogagogchabonagongonag are some of my favourities. The name of the last means: "You fish your side, I fish my side; nobody fish in the middle."

Sailing ceased after the middle of September, and when it was possible to get away from the hospital most people went out on picnics. A picnic in America is a far more sentimental and picturesque affair than most which I recollect in England. For one thing, major cooking is habitually undertaken and picnics by night conducted by firelight and accompanied by singing of an almost ritualistic quality are very popular. While I was at first unfamiliar with much of the procedure and many of the songs, I was never for one moment allowed to feel superfluous or out of it. One of the most endearing and

characteristic qualities of American hospitality is the active acceptance of the guest, by which he can, if he will, become a part of any community in which he finds himself. This characteristic extends far beyond the use of leisure or entertainment, into the realm of work. If a doctor knows his job, the fact that he is a guest or a visitor will not prevent his being asked to take charge of patients with full responsibility for their welfare. This applies not only to people holding temporary positions on the staff, such as visiting professors who come with an appointment awaiting them, but also to more casual visitors who may have only a week or a month to spend. I had the pleasure of spending an afternoon with Mr. Blaikley when he was on his way through Boston, who told me, for example, how he had been invited to take over the department of obstetrics for ten days at the John Hopkins, when he had only arrived a few days previously. I am sure the Americans gain by this readiness to accept and profit by the abilities of visiting experts : that Guy's is more conspicuous in reciprocating this confidence than is customary in English hospitals is perhaps one more advantage of the Exchange System, which needs and must depend upon confidence.

With the beginning of October, the real magic of autumn colours the woods of New England. There may be other places in the world as beautiful at this time of year, but it is impossible to imagine them. There are hundreds of square miles of woodland, and all at once the deep greens and early yellows began to be stabbed with scarlet and ruby as each individual tree puts forth its flame coloured leaves. A whole limb or perhaps several branches may blaze with red, while the rest of the tree is still a living green ; sometimes you may see a giant maple shining like a Christmas tree with great tongues of scarlet licking through the olive green heart of its foliage. Clustered through the woods are the red sumac bushes, running like a ruby necklace between the trunks of the trees. I went one day up into the White Mountains in New Hampshire, arriving before sunrise with two friends who had come to hunt partridges. Here the woods are thick and tangled in places, and gazing out across them from the slopes of the foothills you can see among the fabulous brushwork of red, russet, and green, the white birches standing like slender frozen fountains.

There is another fascination about these woods. They have swallowed up almost without a trace, hundreds of farms and villages which only a hundred years ago were the centre of struggling but determined communities. The houses were built with stone foundations and most of them included cellars ; these cellar holes form one of the most characteristic remaining signs of their existence. Fields and pastures which had been laboriously cleared by hand of flints and boulders are now overgrown with trees and can be recognised only by the borders where the stones remained piled in long rows, forming low walls. Here and there a road hollowed out between banks still connects one abandoned village with another, but trees spring from its very centre and partridge shooting in these surroundings is heavily weighted in favour of the partridge. During a day in which 37 birds were sprung, only three were hit, and not more than 12 were ever seen. I am not a hunter myself, but if I were, this is the kind of sport I would choose, where most of the buckshot lands up in the nearest tree trunk perhaps ten yards away. Later in the season it is possible to hunt deer in these woods, but here again their density and the uncertain vision which they allow leads to at least one hunter being shot by another in the course of the season. It is considered wise for those not interested in shooting or being shot at to stay out of the woods at these times.

The story of the abandoned villages is an interesting one. They were composed of wood frame houses and included schools and churches as well as farms. The people who dwelt in them faced a constant struggle to grapple a living out of the rocky soil, but it seems certain that they were succeeding and might have stayed had it not been for the opening up of the fabulous West, and the legend of the expanding frontier. Within a generation the pioneers had packed up their traps, written off their past, and apparently without a backward look, had departed in search of that enormous, explosive era of opportunity which still captures the imagination of all Americans. Behind them the forests silently and rapidly flooded back. In Yucatan, in

Southern Mexico, which I hope to visit before my return to England, are the vast inexplicable Mayan temples which have been surrounded, but never totally submerged, by the jungle for 1,200 years. They were built by a civilization of which we know nothing except that it flourished and is gone. The history of the abandoned villages of New England is better known, but their disappearance, even within a hundred years, is more nearly complete, and within another hundred, may be total.

After the beauties of the autumn, the approach of winter could not come too quickly for me. This is not the place to enter into the loneliness which must assail a man, even among friends, when he is separated from his wife and children for months on end. By now I knew I could hope for relief in the spring, but the spring was still a long way off. Meanwhile, there was mercifully, plenty of work to do and for a hilarious period of five weeks, the preparation and production of a Minstrel Show in which I took an enthusiastic if decidedly ludicrous part. At last we were approaching Christmas, and in all the windows of the streets around the hospital wreaths, candles, and tiny lighted crosses appeared, producing an effect as enchanting as it was new to me. We had planned to get the ward as nearly empty as possible before Christmas, but we never came in sight of doing so. Instead, a week before Christmas there arrived a character so extraordinary that the most unadorned description of him will seem fantastic. His name was " Suicide Lou " Mormon ; we called him " Dangerous Dan." He was a man of about 40 years of age whose face sloped almost uniformly from vertex to chin. The long incline of his brow was broken by two enormous bony ridges from which his eyebrows sprouted, and below which hung two long flap eyelids almost entirely covering his dark and liquid eyes. Thick black stubble covered his cheek bones and spread across a pendulous upper lip to cover thickly a prognathous jaw. He had long grizzled black hair which hung in front of his ears and curled around the angle of his jaw on both sides, swaying forward when he bowed, as from time to time he did in conversation. He resembled more exactly than anything else a picture of The Beast in an old coloured print of Beauty and the Beast which I possessed as a child. He was an acrobat and stunt man by profession, and his arrival in the hospital was as spectacular as his calling. While performing on some kind of trapeze in a night club, a part of the apparatus had failed and had crashed him head first into a brick wall with barely time to protect his battered skull with his hands. Upon admission to the Emergency Ward, his chief affliction was a lacerated right hand, for which hot soaks were prescribed as an immediate measure. He was discovered by a startled Surgical Resident who had been summoned to take charge, performing a handstand in the basin in order to assure himself that he was still capable of this feat. His appearance on the Surgical Ward was the subject of repeated frantic telephone calls to the Psychiatric Service imploring that we take this apparently dangerous maniac off their hands. A brief interview with him on the Surgical Ward provided him with the opportunity of describing the crisis which had arisen in his own words.

" Now I've been around, I've seen all kinds o' people ; no kinds of people bothers me. I'm interested in all kinds o' people. Dese nurses and doctors, dey's bothered but I ain't bothered ; I seen dere kind of people before, but dey ain't seen anyone like me. . . ."

Under the circumstances, we obliged by taking Dangerous Dan onto our disturbed ward. At first he showed every sign of resenting this. " Der's too many walls here, der's nutting but walls ; walls and electric light bulbs. A guy can go crazy staring at walls and elecrric light bulbs, you know dat ? "

It was explained that there would be a nurse on duty all the time in the ward. He brightened considerably. Within two hours he was thoroughly at home ; special permission had been obtained from the authorities to allow him to smoke, and he was engaged in dictating a play of his own composition to the nurse, in intervals between telling her the story of his life and discoursing on philosophy, morals, and the wonders of the human body.

I had a number of long conversations with him. He told me how he had left school at the age of seven to take part in his parents' trapeze act in the circus ; how he could neither read nor write, but had a lawyer who looked after everything ; and how it was possible to jump out of an airplane at 1,500 feet without a parachute.

" You wears a kind of nylon pajamas with big wings between your wrists and your ankles on both sides and between both legs. Den you swoops and dives until you are near de ground, when you flattens out and makes a landing. Hundreds of guys has tried it ; dey all was killed except me."

" Tell me what else you do ? "

" Well, I dive 110 feet in flames into a 5-foot tank wid oil burning on top. The splash puts out de fire, and dere you are."

" Remarkable. And anything else ? "

" Yes, I crash a stock car by driving it up a ramp and over two Greyhound buses parked side by side, and just before it hits de ground I lock de wheel—so—and grab de door—so—and de car somersaults and smashes to pieces, and I walk out. Mind you, I wear a safety belt."

" Does anyone else do this ? "

" Well, yes ; dere are some other guys dat do it. Dey pay us a t'ousand bucks a time. But dey all killed demselves. Y'see, it's very dangerous."

" I should imagine it was. What do you do with the thousand bucks ? "

" Well now doc, you may not believe dis, but I give it away. I'm so grateful to be alive. And de funny thing is, when I go around giving it to poor people, dey just don't believe it is really money. It's like I said on de other ward ; people don't understand me. Dey've never seen my kind of people before."

I was reminded of the legend of the penniless juggler who, in gratitude for a night's lodging at a monastery, performed his few tricks at the altar rail and was blessed by a miraculous gesture from the Madonna just as the scandalised Monks were hurrying to eject him for sacarilege. Two days before Christmas we had to admit another patient to the disturbed ward : a woman dying in toxic delirium with complete liver failure. Her cries distressed Dangerous Dan unbearably, and he lay on his bed with his fingers in his ears. We transferred him to the main ward, despite the alarm and despondency caused by his appearance, among some of the more susceptible patients, where he regained his resilience. But when relatives came to visit the dying woman, he hastened back to explain to them that he was sharing the ward and that he could personally vouch for the care and kindness she was receiving. Having made this gesture, he elected to remain on the ward until his discharge on Christmas Eve. She died the same night.

He had promised us all tickets to the circus when it came to Boston and had announced his intention of making a personal call upon me the next time he was in England. He told me he had a European wife, a Swedish trapeze artist who was killed in Stockholm during their act.

" You've never seen anyone like her, doc," he said. " She was the most beautiful woman in the world."

He had painted a number of Christmas scenes for us during his stay, using his left hand, and displaying a fine eye for colour. They are of the type which are exhibited at the end-of-the-term display at a kindergarten. But the picture by which I will always remember Dangerous Dan is the coloured print of my childhood, which now has a particular significance for me.

THE BOOKSTALL

Tell us not in mournful numbers
Guy's will never be the same,
That, when Smith's book-stall encumbers
It, the Park will lose its fame.

Blots and landscapes maybe bore us
Onwards still we all must forge ;
Goes not Thomas Guy before us ?
Have we not (God bless him !) George ?

Reviews

Text-book of Bacteriology. By C. H. BROWNING and J. J. MACKIE. Oxford: Cumberlege. *Price* 50*s.*

This edition of Muir and Ritchie's Manual of Bacteriology is an up-to-date presentation of systematic medical bacteriology.

It includes clear and pertinent sections on parasitology, mycology, chemotherapy and technique and is a comprehensive reference book for the student. It is also a useful adjunct to the library of the clinical pathologist.

The terminological controversies have been avoided by Mackie and Browning who employ the old nomenclature with the more recent in parenthesis

The text is clear and easy to follow, and the contents represent current views on most bacteriological problems.

Although the amount of small print might deter the casual observer, this is unavoidable if the wealth of information contained in a book of such convenient size is to be maintained.

The photomicrographs and other illustrations are of the highest quality and admirably illustrate the text.

B.J.S.

Handbook of Ophthalmology. By J. H. AUSTIN. Sylviro Publications, Ltd.

This book is intended for practitioners and students taking ophthalmic diplomas. It contains a wealth of information in short compass and should fulfil its author's purpose, particularly if a good grounding in ophthalmology has already been obtained.

It is not a suitable book for general medical students since the details are too many and the balance of the book is uneven, too much space being given to anatomy and physiology and too little to clinical subjects. There are no illustrations whatever and there are about the average number of misprints judged by post-war standards.

P.A.G.

Medicine for Nurses. By W. GORDON SEARS. 5th Edn. Edward Arnold. *Price* 12*s.* 6*d.*

This textbook is much used by nurses. The arrangement of subject matter and the clarity of description are appreciated.

In the 5th edition some new matter has been added to the causes of peptic ulcer and epilepsies and the term millilitre has replaced c.c. as a unit of volume.

The use of "blanket beds" for rheumatism and nephritis has for some time been deprecated; the patient needs a gown of absorbent material while sweating and a thin blanket over him may add to his comfort. It is hoped that these nursing points may be brought up-to-date in the next issue.

In view of its popularity we wish this book were not still out of print for long periods.

D.L.H.

Modern Practice in Anæsthesia. By FRANKIS EVANS. Butterworth. *Price* 50*s.*

As might be expected in a book compiled by many different authors, the general level, both from the point of view of academic value and literary style, varies quite considerably.

There are one or two serious defects. In the chapter on premedication no mention is made of the use of rectal pentothal for children; and in a book of this type there would not appear to be any place for long lists of chemical formulæ—particularly when they are inaccurately recorded. Figure 25 is incorrectly labelled; and certain chapters contain too many muddling diagrammatic illustrations.

On the whole, however, under the very able editorship of Dr. Frankis Evans, the book maintains a high standard throughout.

D.M.C.

Bacteriology and Pathology for Nurses. By E. IRENE CLARK. Faber & Faber. *Price* 18*s.*

The return of this excellent book will be much appreciated by the nursing profession after its absence during the war years.

It will be of the greatest value to the nurse as it presents in a pleasing form those subjects which the average nurse finds most difficulty in understanding. A little more detail than that required for the State Examination is given but not more than is necessary to have a reasonable comprehension of the subject. It is liberally illustrated with diagrams and pictures.

M.V.

The Doctor's Profession. Edited by DANIEL T. JENKINS. S.C.M. Press for the Christian Frontier Council. *Price* 4*s.* 6*d.*

This book is a well-balanced and stimulating review of the present position of Christian "ideals" and the medical profession. It is an introduction to this subject, intended to initiate "discussion of their vocation among groups of Christian doctors and medical students"; as such it may in some places be considered superficial in taking great care to be scrupulously fair to all points of view. Nevertheless, we welcome this introduction to and survey of the present position, and we shall look forward to a full presentation of the Christian approach to the art and science of healing which is based on the Gospel of Christ as it is to be found in the Old and New Testament Scriptures.

R.J.O.C.

Marihuana in Latin America. By PABLO OSVALDO WOLFF. Linacre Press, Washington. *Price* $1.50.

The consumption of marihuana, better known as hashish in the Old World, has been the object of growing concern in the Americas during the last two decades. The South Americas appear to have survived its threat singularly well for the drug was in use by the natives as far back as the Spanish Conquest. Wolff's wholesale condemnation of hashish can be understood better when we note a remark he made in 1940 that marihuana "is of more interest to us now than ever because in the past ten years alone its excessive use has spread in an appalling manner in the United States." He notes that addicts are found more particularly in the lowest strata of the population. This observation is fundamental. We saw the same distribution in Egypt and elsewhere, but its lesson has not been learnt by the ruling classes. If under-nourishment, starvation wages and a Treasury-stinted public health service represent the best that can be done by the European colonisers, of course the natives will seek escape from their misery into the artificial paradise of hashish.

The crimes of violence which Dr. Wolff deplores will cease with improvement of the social conscience—never as the result of repressive measures.

The monograph is well documented. It is an indictment and thus tendentious. Perhaps no bad thing.

There is danger, however, in the making of such a statement as "there is no medical indication whatsoever that will justify its (the drug's) use in the present day and age." It is not so very long ago that scientists declared Liquid Extract of Ergot as inert and Picrotoxin a therapeutically useless substance. Both fallacies have been exposed by clinicians, and the therapeutical use of cannabis has been revived in this country in the last three years.

It is important to protest against the implication that the supply of a drug should be abolished. Such ex-cathedra announcements might well be translated into bureaucratic action and unexplored fields of research forever closed.

A.H.D.

How Your Body Works. By GEOFFREY H. BOURNE. London Sigma Books. *Price* 12*s.* 6*d.*

Dr. Bourne set out to write a book describing the physiology of the human body for medical auxiliaries, pre-medical students and interested laymen. The main difficulty of such a task is the selection of the material: in the main, Dr. Bourne has succeeded although he has included material which is not obviously relevant to his purpose nor of general interest.

Sport and Hospital Information, etc.

RUGBY CLUB

Guy's *v.* Old Millbillians
Away. Won 13—0.

Guy's *v.* Old Merchant Taylors
Home. Won 12—8.

Guy's continued to win in the last two games. On the Saturday after Christmas they beat the Old Millhillians at Headstone Lane by 2 goals and a try to nothing. The game was inclined to be scrappy and was played at a fairly slow pace. There was some good play to be seen, in particular the first try by Bellis in which he ran through the Old Boys and finished behind the post. Guy's were on the verge of scoring on several occasions after this, but faulty handling marred the play.

After half-time, Birch scored a try and later F. le Clus broke on the blind-side and ran in to score. Two tries were converted by Davies.

The game against the Old Merchant Taylors was a robust affair but again the handling broke down at times and on one occasion led to the O.M.T. scoring.

Guy's began slowly and were penned for a long time in their own 25. The scrum began to work hard and J. Robinson was getting a little more than his share of the ball in the tight. D. le Clus, back in the side after absence due to injury, then kicked a magnificent penalty goal. Shortly afterwards, Wilson following up, picked up a loose ball and side-stepped the full-back to score. D. le Clus struck the upright with his kick and the ball bounced back. Having reached their opponents half, Guy's stayed there and pressed hard. While a loose scrum was in progress one of the Old Boys three-quarters got offside and a kick was given under the posts which D. le Clus had no trouble with.

In the second half there were several strong runs which came to nothing. Heber made a great deal of ground on one occasion and then the passing went awry. Guy's seemed rooted to the ground as the Old Boys rushed the ball up the field to score in the corner. Within three minutes they scored a goal following a try by their scrum-half. At this stage, Guy's rallied again and Heber cut through running very well and handed the ball on. Eventually it reached Wilson who was able to score his second try. So the game ended.

SQUASH

The Individual Competition was won by D. E. Blake who beat M. A. C. Lyon in the final by three games to love.

The Semi-finals of the Hospital's Cup against St. Mary's will be played at Guy's on January 19th, starting at 6.30 p.m.

P. L. PICKETT,
Hon. Sec., Squash.

APPOINTMENTS

Dr. K. W. N. Palmer, T.D., D.Phys.Med., Director of Physical Medicine, Dryburn Hospital, Durham.

Miss Dorothy Holland has been appointed to serve on the Advisory Committee on Nursing and Sister Tutors' Diplomas.

Miss Audrey Lewin obtained the Diploma in Nursing (University of London) and has been appointed to the panel of Examiners of the General Nursing Council of England and Wales.

MISSING

Volume 3 of British Surgical Practice is missing from the Surgical Department Library. Would the borrower please return this book to the Library as soon as possible.

PASS LIST

SOCIETY OF APOTHECARIES OF LONDON

FINAL EXAMINATION.
December, 1949.

Pathology, Bacteriology and Forensic Medicine.
A. H. R. Hewett-Clarke

Medicine.
I. G. Johnston I. A. W. Scott
C. R. Lynn

Midwifery.
A. C. de B. Eksteen

UNIVERSITY OF LONDON

M.S. Branch I (Surgery).
December, 1949.
B. G. A. Lilwall

UNIVERSITY OF LONDON

SECOND EXAMINATION IN DENTAL SURGERY—PART II.
December, 1949.
Revised Regulations.
R. G. K. Burston D. O. Wilkes
S. Shindler J. M. Wood

THIRD (B.D.S.) EXAMINATION IN DENTAL SURGERY.
December, 1949.
Honours.
P. J. Holloway (Distinguished in Pathology and Bacteriology).
Ronald Marx (Distinguished in Dental Surgery and Orthodontics).

Pass.
D. R. Boswell B. E. Lawson

SECOND EXAMINATION IN DENTAL SURGERY—PART I.
December, 1949.
New Regulations.
R. C. Jeffrey I. L. Thomas
N. E. Malyon

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.
Dental Prosthetics and the Properties of Dental Materials.
(SECOND EXAMINATION).
December, 1949.

G. H. Danford	J. A. Mepsted
P. D. Daw	D. J. Neill
Miss A. R. Fooks	K. H. Pickup
T. B. Forward	F. Quail
J. M. Hobbs	R. D. Rowe
D. A. Holford	H. G. P. Ryan
R. E. Lee	Miss N. Shotts
J. H. McCormick	P. Sykes
D. G. Matthews	P. W. P. Warren

M.R.C.S., L.R.C.P.
December, 1949.
Chemistry.
M. A. Webber.

Physics.
B. H. Allen V. C. Evered
A. L. Benson
Elementary Biology.
W. F. Airey P. Davies
B. H. Allen V. C. Evered
A. L. Benson

PAPERS BY GUY'S MEN

Barber, H. W. Periarteritis Nodosa. *Proc. Roy. Soc. Med.*, 1949, **42**, 945.

Blackburn, Guy. Diseases of the Thyroid. I. Toxic Goitre. *Nursing Mirror*, 1949 (Dec. 23rd), p. 255.

Brain, F. H. The Estimation of Trichlorœthylene in Air. *Analyst*, 1949, **74**, 555.

Burn, J. H., and Another. The Action of Noradrenaline. *Brit. J. Pharmacol.*, 1949, **4**, 3738.

Campbell, A. M. G. D.D.T. Poisoning in Man: A Suspected Case. *Lancet*, 1949, ii, 117 .

Campbell, Maurice. Genetic and Environmental Factors in Congenital Heart Disease. *Quart. J. Med.*, 1949, **18**, 379.

Clarkson, Patrick. The Webster Operation for Gynæcomastia. *J. Roy. Army Med. Corps.*, 1949, **93**, 161.

——. Reconstructive Surgery of Nose: Reconstructive Surgery of Ear. *Ibid.*, 1949, Vol. 7.

Clarkson, Patrick, and Another. Thumb reconstruction by transfer of big toe. *Brit. Med. J.*, 1949, ii, 1332.

Covell, Sir Gordon. Bats, Clover, Water Lettuce and Malaria. *London Hosp. Gaz.*, 1949, **52**, 177. (From the Indian Journal of Malariology).

East, Sir (Norwood. Juvenile Delinquency. *Brit. Med. Bull.*, 1949, **6**, 1302.

——. Study and Treatment of the Criminal and Care of the Mentally Defective and Mentally Abnormal Criminal. *Ibid.*, 1304.

Foss, M. E., and Gibson, C. S. The Organic Compounds of Gold. Part XII.—The Constitution of Co-ordination Complexes of Dialkyligold Compounds with Diamines containing the N–C–C–N Grouping. J. *Chem. Soc.*, 1949 (Nov.), p. 3063.

——. The Organic Compounds of Gold. Part XIII.—Some Dialkyl Gold Compounds containing Phosphorus and Arsenic. *Ibid.* 3075.

Harkness, A. H. Reiter's Disease. *Brit. J. Ven. Dis.*, 1949, **25**, 185.

Hill, Ian M. Surgery for "Blue Babies." *Nursing Mirror*, 1949 (Dec. 16th), p. 227.

Layton, T. B. Tonsils and Adenoids. *Med. World*, 1949, **71**, 612; 1950, **71**, 643.

Layton, T. B. Tonsils and Adenoids III. *Med. World*, 1949, **71**, 544.

Layton, T. B. Tonsils and Adenoids. *Med. World*, 1949, **71**, 480, 517.

Lubran, M. Estimation of "Hetrazan" in Body Fluids. *Nature*, 1949, **164**, 1133.

Northfield, D. W. C. Radon Implantation for Acromegaly and Cushings Syndrome. *Proc. Roy. Soc. Med.*, 1949, **42**, 845.

Oliver, Leslie C. The present position of Surgery in the treatment of Parkinsonism. *Pract.*, 1949, **163**, 541.

Rowland, P. R. Reactivity of Different Faces of a Copper Single Crystal. *Nature*, 1949, **164**, 1091.

Stafford-Clark, D., and Another. Cicallin and electro-encephalographic studies of prisoners charged with murder. *J. Neurol. Neurosurg. and Psychiat.*, 1949, **4**, 325.

Thomas, G. A., and Others. The Influence of Nerve Fibres on Schwann Cell Migration investigated in Tissue Culture. *Proc. Roy. Soc. B.*, 1949, **136**, 448.

CHANGES OF ADDRESS

Professor J. A. Ryle, F.R.C.P., *from* 22a Banbury Road, and the Institute of Social Medicine, Oxford. *to* Barkhale, Sutton, nr. Pulborough, Sussex.

K. H. L. Scougall, M.B., B.Ch., Fort William Sanatorium, Ontario.

E. A. Wright, M.B., M.R.C.P., 18, First Street, Chelsea, S.W.3.

NOTICES

PUPILS PHYSICAL SOCIETY

On Thursday, 26th January, at 8.15 in the Anatomy Theatre Dr. H. C. Cameron will address the Guy's Hospital Pupils Society on the Subject of "Joseph Lister and the beginings of Modern Surgery."

UNIVERSITY OF LONDON

J. Joseph, M.B., Ch.B., M.R.C.O.G., has been appointed to the University Readership in Anatomy, tenable at Guy's Hospital Medical School.

C. de V. Green, L.D.S., R.C.S. Eng., D.D.S. Toronto, has been granted recognition as Teacher in Dental Surgery at University College Hospital.

SOCIETY OF APOTHECARIES OF LONDON

Dr. T. R. Hill and Mr. A. D. Marston have been clothed with the livery of the Society.

Dr. Geoffrey Marshall has been admitted to the freedom of the Society by redemption.

UNIVERSITY OF OXFORD

Because of illness, Prof. J. A. Ryle has resigned from the Chair of Social Medicine in the University.

NEW YEAR'S HONOURS

C.B.E.

K. I. Julian, Member of the Board of Governors, Guy's Hospital, and Chairman of the South East Metropolitan Regional Hospital Board.

R. V. Bradlaw, M.D.S. Durh., F.R.C.S., F.D.S., R.C.S., Dean of the Faculty of Dental Surgery, Royal College of Surgeons of England; Professor of Oral Surgery, University of Durham.

O.B.E.

E. S. Bowes, M.R.C.S., Chairman, Pool Centre, St. John Ambulance Association.

E. T. Conybeare, M.D., F.R.C.S., Medical Officer, Ministry of Health.

B. Lees Read, Clerk to the Governors of Guy's Hospital.

BIRTHS

PINK.—On December 6th, 1949, at the Mornington Nursing Home, Bradford, to Joy, wife of S. C. J. Pink—a son (Richard Stanley John), a brother for Cheryl.

UNSTEAD.—On November 16th, 1949, at Durban, to Nancy, wife of H. Ronald Unstead, L.D.S.—a son (Peter Ronald), a brother for Anthony and Valerie.

MARRIAGES

CLARE—CAMPBELL.—On December 19th, 1949, at St. John's Church, Harrow, John R. C. Clare to Heather Olivia Campbell, S.R.N.

DAVIES—JACOB.—On December 10th, 1949, at Gravesend, Kent, Daniel Oliver Davies, Squadron Leader, R.A.F., Medical Service, to Margaret Lockwood Jacob, S.R.N.

GOLDEN WEDDING

HINCHLIFF—HINKLEY.—On January 3rd, 1900, Charles John Hinchliff, L.D.S., R.C.S. (Dental Staff, 1901), to Nurse S. S. Hinkley. Present address: 29, Ridgeside Avenue, Withdean, Brighton 6.

DEATHS

STEVENS.—On December 30th, 1949 (suddenly), William Stewart Stevens, L.D.S., R.C.S., of 152, Darnley Road, Gravesend, Kent.

EDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1605 28th January 1950 Ninepence

PASSIM

A MEMBER of the staff has sent us a literary journal. It contains an article on the English language which he brings to our particular notice. For certain we have sinned in the passed and no doubt we shall do so again. We take the liberty, none the less, to mention the faults of others, not in any spirit of unassailable virtue but because bad writing reflects bad thinking and only by positive action can this tendency be arrested.

To take a sentence out of its context is perhaps a little unfair, yet we cannot resist the following from a publication on psychological research: "In ideational apraxia it is well known that the complex acts involved in purposive manipulation of objects can often be performed normally in an accustomed and properly motivated setting." The fact is, in our opinion, the psychologists and their associated brethren are the worst offenders of all. Next probably come the nuclear physicists. The purpose of language, as we see it, is "as an instrument for expressing and not for concealing or preventing thought." When an author has something definite to say he can usually put it into suitable words; witness any text-book of anatomy. Even these masterpieces of description have their blemishes. Those passages concerned, for example, with the course of the thyroglossal duct in relation to the body of the hyoid display an extraordinary vagueness, simply because the correct answer is not known. Maybe the English language is not well adapted for putting abstract ideas into words, but is suited only to the specification of more concrete forms. For all that, we suspect that those who fail to make their meaning clear are not very lucid in their thinking or, worse still, are not really thinking at all.

In more detail, we suffer from a spate of unnecessary words like "very," from a surfeit of double negatives—"not uncommon," and from a welter of circumlocution—"acknowledge our indebtedness" instead of "thank." On the alarm, by contrast, we shout "fire!" not "conflagration!" Finally we are beset by a prolificacy of the anonymous "it."

Is there any good reason for pretentiousness in what masquerades as scientific literature? Many causes can be cited. In the first place, people will not think before they speak or write; they are in far too much of a hurry to say something in assembled company or to see their "verbojuice" in print. Contributing to this, of course, is undue mental laziness. Secondly, dictating to a stenographer makes for the slovenly use of overworked phrases. They come more easily and avoid embarrassing pauses. Finally, there is the overwhelming desire to show-off, an all-to-common failing.

The child who penned in firm and painful hand "The horse is a noble animal. It lives in a stable and it eats hay. It is the friend of man." may not have created any beautiful composition. At least he made his meaning clear. Far too many medical men fail in this simple task. Instead they use such mystifying terms and awkward constructions that their efforts become as Victorian wallpapers—intricate, flamboyant, full of virtuosity, yet jarring to the nerves, vulgar and rapidly fading with the passing of the years. They can claim no transient soothing effect, let alone permanent merit.

Crusading is an activity to which we never aspire. Still there is no reason why medical writers should not set a high standard in their work. Let them put pen to paper only when they have knowledge to convey. Let those who deal in abstruse subjects remember that what others need is enlightenment, not shrouding with complexities. Finally, let no one use a thousand words when a hundred words will do. Meanwhile, we are considering a précis of this Passim.

" Well, yer don't mind bein' a guinea pig and helpin' 'em, do yer, but yer don't want too much of it ? They come along, one arter another, poked me, tapped me and stuck them tubes on me chest. Then the 'ead one come and said somethin' to 'em and arter that they didn't tell me nothin'." It was Saturday mid-day and he had been in the Front Surgery during the morning. Now, in the Express Dairy, he was surrounded by his cronies to whom, with much colourful expression and cockney gesture, he was relating his experiences.

After all, he was probably right. People come to the Hospital because they are unwell ; they expect to get both treatment and advice. As it is Guy's and they know it is a teaching centre they are prepared to meet students who are learning the art. Nevertheless they feel some resentment when they appear to suffer at the hands of the tyros and are offered so little by way of return. Not that this is the rule, by any means. Yet it is a circumstance against which everyone must be constantly on guard.

The trouble is, in brief, too many students for too few patients. Until this state of affairs is reversed no one can be satisfied. Recently some concern was expressed about the failures in the qualifying examinations. Elaborate courses are being planned in consequence to equip students more adequately for the final ordeal. Yet even in the written papers, not to mention the clinical tests, what stands by the candidate best of all is a recollection of actual cases, supplemented unconsciously by reading on the subject. No mere study or lectures alone, however well organised, will have such a lasting impression. Furthermore, the simple viewing of cases and the demonstration thereon is not enough. The real test is seeing the patient for the first time, taking a history, carrying out an examination and reaching a diagnosis, be it ever so provisional. Only by making such a declaration will one ever learn in the end.

Numerous other hospitals exist, many of them within easy reach of Guy's. In most of them cases are seen which are far more common in practice than certain of the oddities that gravitate toward the teaching centres. Students will be better trained as doctors and, we venture to suggest, acquit themselves with more success in their examinations when they have access to this further " clinical material," horrible expression though that is. At the same time a minority of patients will be relieved of much of the throughly exhausting re-examination.

Circumstances unfortunately prevented us from printing in an earlier issue a full report of the religious services held in the Hospital over Christmas. The Chaplain has nevertheless kindly agreed to incorporate the substance of the Address in an article which appears on another page under the title " *Dare Quam Accipere.*"

On January 1st the editors indulged in the liberty of a few New Year resolutions. They decided for instance, not to get annoyed or lose their tempers when :—

(i) Unsigned articles appear in the Gazette office.

(ii) Contributors write illegibly and take no special care about proper names

(iii) Articles are written on *both* sides of the paper

(iv) Items are received *after* the first post on the Monday morning during the week of publication

(v) Correspondents and reporters fail to keep their promises.

But they are already seriously provoked.

Peyronie's Disease and Proctalgia Fugax

by RALPH KAUNTZE, M.D.

A Clinical Lecture delivered in Guy's Hospital Medical School on 6th January, 1950.

LADIES AND GENTLEMEN,—There are two maladies which receive scant notice in the standard textbooks, yet which are attended by anguish of mind or body, for the relief of which your help may be sought. I refer to Peyronie's disease and proctalgia fugax. Although æ:iologically unrelated, we may conveniently consider points in regard to each this afternoon.

PEYRONIE'S DISEASE

Towards the close of the 19th century Jonathan Hutchinson (1894) in an essay " On curving of the penis " considered in some detail eleven patients so afflicted, and remarked upon the occasional association with contracture of the palmar fascia. Hutchinson's, though the best, was not the first account, for Sir James Paget (1875) and before him H. J. Johnson (1851) had previously expressed views on the condition. To François de la Peyronie (1743), an 18th century French surgeon, goes the credit for the original account, although according to Wesson (1943) his reference was to a patient with scar tissue, " rosary beads " on the dorsum of the penis, urethral stricture and finally curvature—a condition different in pathology from that which we are considering. Therefore, I prefer the description penile curvature to Peyronie's disease.

DIAGNOSIS—.The complaint is, that on erection, the penis curves backwards towards the symphysis pubis. This curvature may be greater during the advent of erection than when complete. The curve is acute and most often in the distal third behind the glans. There is no physical pain, and if insertion is possible, performance is unimpaired. The condition is noted only when well developed ; in some instances it is progressive. There is no antecedent story of injury or thrombosis : previous gonorrhoea is unusual. It occurs most frequently in middle life. Burford, Glenn & Burford (1946) found 91% of 71 cases between the ages of 40 and 70 years. The first appearance of the deformity may, as Sir James Paget remarked " sometimes frighten with the fright of cancer." Nonetheless some months may elapse before the patient seeks medical advice.

The following histories are typical :—

(1) An overworked businessman, aged 58, had observed during three months that on erection his penis curved backwards, that the curvature was in the distal part, was unattended by pain and interfered little with function. The condition was well marked when first noted, and had become perhaps more pronounced since. There was no upset of micturition. There had been neither trauma nor suggestion of thrombosis. He had not had venereal infection. He had two healthy sons and a wife, to whom he was devoted. A further point in the history was of irregular dyspespia in the previous three years.

When examined he was anxious, overweight, and showed dermatitis herpetiformis, particularly on the face. The blood pressure was 195/120. The penis, when flaccid, and the testes were normal, as was rectal examination. In the left palm was an early Dupuytren's contracture : he was right handed.

The blood count, Wassermann reaction, sedimentation rate and urine yielded no abnormality.

---

(2) A professional soldier, of arresting physique, aged 52, had experienced, in the previous year, increasing difficulty in sexual intercourse, from backward curvature of the penis ; so that although desire remained, practice was no longer possible. There had been neither trauma nor venereal infection. He had three healthy children. In the Far East many years previously he had had enteric fever, malaria, and dysentery (? bacillary). The family history was not contributory.

On palpation there was a small fibrous cord an inch behi d the glans on the dorsum, extending in the mid-line for an inch proximally. There was n contracture in the palmar fasciæ. Proctoscopy was normal. The blood Wassermann reaction was negative.

PATHOLOGY AND AETIOLOGY.—Hutchinson described induration and uneveness in the structure of the corpora cavernosa. Burford *et al.* (1946)

noted a spade shaped fibrous plaque, of which the blade was on the dorsum near the glans, and from which a slender band representing the shaft extended proximally. Fricke & Varney (1948) found the tunics of the corpora cavernosa, or the intercavernous septum, or both involved in fibrosis, and that biopsy showed fibroblasts, collagen fibres and few blood vessels, in fact the features of a keloid. Van Buren (1874) has recorded calcification of the fibrous sheath of the corpus cavernosum ; and even bone has been described. However, it is not uncommon for the penis to show no abnormality, when flaccid, and in my limited experience this has been usually so. Clearly, therefore, these patients may be placed in two groups, with, or without appreciable induration. In either case the disability may progress, yet the corpus spongiosum and the urethra are spared. In a different category are those cases which follow frank thrombosis of one or both corpora cavernosa, in which atrophy makes this previous occurrence recognisable, or where unilateral involvement causes a lateral displacement on erection, which alone warrants the quaint epithet of penile strabismus. Hutchinson describes one such patient, who had suffered severely from gonorrhœa and repeated instrumentation. Similarly periurethral abscess, stricture, and Cowperitis are excluded from the ætiology of this idiopathic curvature.

Although cavernositis is a term in common use for the disability, there is no direct evidence that inflammation plays a part. The association with palmar fascial induration is too frequent not to be of significance, in the production of which, repeated minor trauma, together with hereditary predisposition have been considered the main factors, since the original description by Guillaume Dupuytren—that immensely successful and hardly sympathetic surgeon, described by his contemporary, Lisfranc, as " the brigand of the Hotel Dieu." Dupuytren did not, that I am aware, comment on the association of penile curvature with palmar fascial thickening : but in 1851 H. J. Johnson drew attention to the analogy between the two. Peyronie, refering to his patient with curvature and stricture, remarked that it occured in " men who give themselves up to the vivacity of the temperament," which may well be, but has not I contend any ætiological bearing on this idiopathic curvature. Wesson (1943) considered the malady " never found in one whose consort is enthusiastically co-operative." Yet the condition most usually appears in late middle age and throughout the clinical stories there is little support of this view: Hutchinson's gentleman of 56, from Bishop's Stortford, whose wife had presented him with some 15 children would hardly have considered the lady frigid. Sir James Paget was firmly of the opinion that the curvature was a manifestation of gout. It may well be that repeated minor trauma is the antecedent in a particular diathesis and that some fibrosis in the tunics or intercavernous septum is always present, its extent determining palpability or the reverse. In Dupuytren's contracture there is often a familial incidence, this does not apparently hold for penile curvature, although it is to be expected.

That the disease is rated uncommon is perhaps an expression of the reticence of patients and the time of life of its occurrence. There is never any evidence of malignancy.

TREATMENT.—As to treatment, let me quote from H. J. Johnson, "I prescribed leeches, blisters, mercurials, tartar emetic and iodine ointments, fomentations, poultices, cold lotions, even ice, with calomel and opium, salines, iodide of potassium and sarsaparilla, the liquor potassæ—all the remedies in short which would naturally occur to me in the management of such a case." What virtuosity ! for this series of clysters and blisters was exhibited in his first case. Of a subsequent patient he ingenuously remarked "I also recommended him to pursue an active course of blisters. I have not heard of him since." All this a century ago, forty years later potassium iodide was in vogue, when Berkeley Hill informed a patient " I have seen about six cases like yours, and if you have come expecting me to cure you, I must tell you candidly that I cannot, for I never saw improvement in any of them." X-radiation gave equivocal results ; one would hardly have expected otherwise. Diathermy has its advocates, it is not with-

out danger in the hands of amateurs. Latterly the radium plaque has been used; Burford *et al.* (1946) report 21% cured by this means and Fricke & Varney (1948) record "cure or excellent results" in 12% of 141 patients. Unfortunately superficial skin scarring may be a complication.

Scott and Scardino (1948) have recently reported upon the use of the tocopherols; in 23 patients so-treated they noted complete disappearance of the curvature in four and a marked decrease in four. Although one is somewhat chary of this modern panacea and there are obvious theoretical objections, the vitamin is worth trying, especially where there is little induration. The dose should be 300mg. of mixed tocopherols or 200 mg. of synthetic *alpha* tocopherol daily for some months, and if successful a small maintenance dose thereafter. I have had no experience of this mode of therapy and the main theme of treatment has been reassurance that the condition, even though disquieting, is not malignant. Surgery is to be avoided, for it may be followed by loss of erectile power. Very rarely spontaneous resolution has been recorded.

Van Buren, W. H. & Keyes, E. L. (1874). *Surgical Diseases of the Genito-Urinary Organs, including Syphilis, New York,*
Burford, C. E., Glenn, J. E. & Burford, E. H. (1946). *J. Urol.*, **56** : 118
Fricke, R. E. & Varney, J. H. (1948). *J. Urol.*, **59** : 627.
Hutchinson, Jonathan (1894). *Arch. Surgery*,**5** : 329.
Johnson, H. J. (1851). *Lancet*, **2** : 481&573.
Paget, Sir James (1875). *Lectures on Gouty Affections of the Genital Organs, London.*
Peyronie, F. de la (1743). Sur quelques obstacles qui s'opposent á l'ejaculation naturelle de la semence. Paris
Scott, W. W. & Scardino, P.L. (1948) *South M.J.* **41**:173.
Wesson, M. B. (1943). *J. Urol.*, **49** : 350

PROCTALGIA FUGAX

Proctalgia fugax was the name given by Hess Thaysen (1935) to a pain of fleeting character, situated in the rectum. The condition appears often to be hereditary and is allied to those spasmodic afflictions, which number asthma, migraine and colon spasm. Overwhelmingly more common in males, it begins often in the third decade and occurs at irregular intervals throughout life. Like other spasmodic ailments such as gout, it occurs particularly in the early hours. Typically the patient retires to bed in good health, only to be awakened by an ache, gnawing or cramp-like pain in the rectum. The situation is always above the sphincter ani, and localised to the rectum. The ache is crescendo and severe, but not comparable to the agony of renal colic; nor is there colic. At its height the patient is pale, with forehead damp from sweat; the pulse is rapid: there is desire to defæcate, but neither fæces nor flatus may be passed. There is no tenesmus. In a matter of minutes, ten to fifteen, the spasm subsides; it may infrequently recur later in the night. Rarely it is present by day. There are certain apparent precipitants, unusually heavy meals before retiring, perineal trauma as in motor cyclists, excessive sexual intercourse, and particularly worry. At times certain articles of food have been singled out for blame, but there is no consistent precipitation of the spasm. Constipation plays no part, indeed the reverse, for the malady is particularly masculine in incidence.

The following histories are illustrative :—

(1) A physician, aged 36, had suffered since 19 from attacks of cramp in the rectum. The seizures occurred most usually after retiring to bed, would waken him and rapidly become a considerable agony. He gained partial relief from digital dilatation of the anal canal and sometimes from the removal of small hard pointed scyballa. He never found the anal sphincter in spasm. The attack lasted ten minutes or so and was accompanied by pallor. On the succeeding day there was slight fatigue. The intervals between the attacks were of four months or more. He considered heavy meals, particularly of pork, and worry to be precipitants.

Since childhood there had been typical migraine. Both this and the proctalgia had been infrequent during service overseas in the 1939-45 war. His father was the subject of hay fever and suffered infrequently from similar proctalgia, for the treatment of which he was a firm believer in alcohol in concentrated form.

Physical examination was negative and proctoscopy unremarkable. He was of obsessional make-up.

(2) A lady of 40, of high intelligence and the mother of three children, had had in the last eight years four or five attacks of rectal pain. The spasms had occured by day as well as by night, lasted for 15 minutes or less, and were so severe at their height as to be compared by her to the pains of childbirth. There was never radiation of the pain. Constipation had been a lifelong complaint, yet the attacks were not related to exacerbations of this. The first attack was during considerable emotional stress.

There was a family history of hay fever.

Physical examination was negative.

PATHOLOGY.—What is the nature of this disorder? Its character is that of visceral pain, presumably from undue tension, giving rise to local ischæmia in the bowel wall. A tension resulting from spastic contraction, rather than inability to relax in the face of increasing intra-luminal pressure, for relief of the seizure is not often accompanied by the passage of fæces or flatus. These patients are rarely constipated and when scyballa are present, these are not associated with a rectum full of fæces. Distention of the rectum, digital, instrumental or with air from a syringe, has been used as a method of relief, and with success, which further favours the idea of spasm. There is no spasm of the sphincter ani nor in the lower rectum, it is probable that the tension lies in the upper reaches of the rectum, or in the neighbourhood of the pelvi-rectal junction: although I must admit of no clinical proof of this. Two of my patients who have made digital examinations during the seizures have found no area of localised tenderness or spasm. Nor do I think spasm in the levatores ani a factor.

ÆTIOLOGY.—Is the condition allergic? There is little evidence either way, yet the bouts are so infrequent as to make this supposition unlikely. Worry is constantly thought by the patient to be a precipitant, as in colon-spasm and migraine, and conversely the absence of worry may be associated with long periods of freedom from the pain, as in the first case history. These patients belong to a particular group, in whom spasmodic affections are common, a diathesis in which heredity is strong. Amongst the correspondence, concerning proctalgia fugax, in a medical journal some years ago, there appeared two consecutive letters, in the first of which decided views were expressed that the condition was wholly the result of onanism: in the second a septuagenarian sufferer described his symptoms. One may, of course, discount the burden of the first letter. Proctalgia fugax belongs, as was suggested I believe by Professor Ryle, to the visceral neuroses, of which colon-spasm is an interesting example. In this connexion I have notes of the two conditions occurring at different times in the same subject.

DIAGNOSIS.—Diagnosis depends on the history and to a lesser degree on exclusion of rectal abnormality. The differential diagnosis includes rectal neuralgia, which is a persistent (not episodic) smouldering pain with spread to the hips and perineum, usually in an obviously neurotic individual (Albu 1907), the constant perineal or rectal ache of prostatitis, and the anal crisis of tabes dorsalis, in which apart from the neurological evidence, the sensation is of a "wedge being driven into the rectum," together with tenesmus, diarrhoea and hæmorrhage.

TREATMENT.—The attacks of proctalgia fugax are usually so infrequent that prolonged treatment with antispasmodics of the belladonna group is not indicated. Dilatation of the rectum during the attack, by the finger clothed in a finger stall and well lubricated should be suggested. I have not used amyl nitrite or nitroglycerine, but I think either worth a trial, forewarning the patient of the inevitable headache, which amyl nitrite will produce. Nitroglycerine should be dissolved under the tongue, thereby entering the systemic circulation without passing through the liver. Of the aliphatic narcotics there is alcohol, which to some is a sovereign cure. But most important is the reassurance of an anxious patient that there is no underlying organic disease, particularly cancer, and some elementary explanation of the phenomenon.

Thaysen, H. *Lancet*, 1935, **2**: 243.

The Body-Snatchers

By HUGH BARBER, M.D., F.R.C.P.
Consulting Physician to the Derbyshire Royal Infirmary.

Don't go to weep upon my grave
And think that there I be,
They haven't left an atom there
Of my anatomie.
"*Mary's Ghost.*" *Thomas Hood.*

IT was during the period of twenty years in which Thomas Hood was publishing his poems that the Anatomy Act was passed in 1832, and the Body-Snatchers went out of business. One of Hood's last ballads, *The Song of the Shirt*, which appeared in the Christmas number of Punch in 1843, shook the equanimity of the better educated classes throughout the land with regard to the miserable penury of the seamstress. He could, however, make game of, and exercise his gifts as a punster on body-snatching in the poems of *Mary's Ghost* and of *Jack Hall*; in the latter of which he refers to "a sack to carry the bodies off in," to complete the rhyme with the words "a very short fit of coffin."

What did our great-great-grandparents really think of the Resurrectionists? In the main they knew little about them, although in 1711 there was an outcry because Greyfriars churchyard in Edinburgh was robbed; and in 1725 the windows of Dr. Munro's (the first of that name) anatomical establishment in Edinburgh were broken by way of protest. It may have been that our forefathers did not take these desecrations very seriously when it was somebody else's grave and not one of their own family. There is a record of a London medical student finding the body of his niece in the dissecting room. She had died a natural death and been buried recently. It is not surprising that he was very upset. And yet this must have set him thinking.

Early Anatomy.

The demand grew up for this gruesome trade of supply, when the student of medicine himself needed the experience of dissection. This need was long in coming. The Greeks and Arabians, who were the only scientific medical men before the Renaissance, had a superstitious reverence for the dead which discountenanced dissection. A little may have been practised in the Alexandrian school (B.C. 300) but Galen in the second century A.D. learned anatomy from animals. In the Middle Ages human dissection was inderdicted by the Pope, although eventually sanctioned by Benedict XIV in Bologna. It was in this city that Mondino (1275-1326) is credited with being the first authentic human dissector. He read from Galen while an assistant did the practical work. Not many bodies where required, but there is a record that some students were prosecuted for robbing a grave.

The study of human anatomy, of course, really commenced with Vesalius (1514-1564), professor of surgery and anatomy at Padua, because he demonstrated the truth that anatomy could only be learned by personal dissection. He picked up bones in the graveyards, once stole a skeleton from a gibbet and did a little body-snatching with his students.

But in the sixteenth century dissections were not common. One student at the famous medical school of Montpellier during a period of five years only witnessed eleven. He tells of three dangerous expeditions to the cemeteries. In the British Isles the bodies of criminals were granted to the surgeons in the sixteenth century; and for an Oxford student to graduate in medicine it was obligatory to have witnessed two anatomies. In the seventeenth century the only genuine medical examination was by the Royal College of Physicians.

The Eighteenth Century.

The real demand for anatomical "subjects" came in the eighteenth century, with the rise of the medical school in Edinburgh (inspired by the example of the Dutch School at Leyden) and the anatomy schools in London. Particularly towards the end of the century, and in the early years of the nine-

teenth, there were not enough criminals executed to provide for the needs of the growing number of students.

Apart from the bodies of criminals executed, which were officially sent to the anatomists, there were two ways in which they were obtained surreptitiously, either in a few cases by stealing a corpse before burial or more commonly by opening the grave of someone recently interred. The fact that an anatomical "subject" might be one that obviously had not been buried is a reason, although not altogether an excuse, for those who accepted for dissection bodies of people who had been murdered, without realising that they were the results of crime.

Except in one London hospital it was unusual to obtain a subject for dissection from the hospital dead-house. And in this institution, eventually, the chaplain said he would no longer read the funeral service over a coffin full of stones. The professional resurrectionist would sometimes buy a body from the undertaker and sell it at a profit, or would pose as a relative and claim one at a workhouse. One enterprising body-snatcher saw a man die in the street and claimed him as a "cousin."

The Resurrectionists in London were naturally a rough and dissipated lot, but they were highly skilled. The most expert could rob a grave and repair it to the last detail of decoration with flower or sea-shell. If a particular body was required for an autopsy it could be obtained. Of this, Sir Astley Cooper informed the Royal Commission. The Resurrectionists were on good terms with the most distinguished surgeons; such as John Hunter and Sir Astley; who would help the dependents if need arose on account of fine or imprisonment.

A Flourishing Trade.

In the early nineteenth cetury, when the trade was at its height, one of the most famous body-snatchers in London was an Irishman named Murphy. Another well known was Ben Crouch, son of the carpenter at Guy's, who led a gang of four. Murphy is credited with having obtained a hundred pounds for one night's work. A rival is said to have collected twenty-three bodies in four nights and another three hundred and forty-nine bodies in two years. As a side line it was lucrative to collect teeth—even to go so far as continental battle-fields— to sell to the dentists. Murphy one night invaded a vault and came away with enough teeth to give him a profit of sixty pounds. One of these worthies seems to have been quite exceptional in the fact that he was thrifty, for he left a fortune of six thousand pounds to his dependents.

It was a dangerous trade. Fights would take place between rival gangs or assault come from a hostile crowd—from which one resurrectionist died. On the whole the law did not intervene frequently. Watchmen and sextons, in many instances, were receiving fees from the body-snatchers. The body itself was no one's property; so that it was only a misdemeanor to extract it; but to steal the grave-clothes might be a felony meriting transportation. Probably a watch by the relatives was the only safeguard. Iron cages over the graves or iron coffins could not deter the experts.

In Edinburgh the professional resurrectionists were active, but there were numerous body-snatching expeditions by doctors and students into the country around. One of the students died from injuries received from a trap-gun placed on the grave as a protection; and the fatality was accounted for as suicide. That cemeteries were haunted by the ghosts of the departed was a belief widely held, which tended to leave the coast clear for the body snatchers in country districts.

To go out upon such an expedition on a moonless night must have been an exciting adventure. The picture—with a little melodrama added—is described by R. L. Stevenson in his story *The Body-Snatcher*.

Near each hospital or anatomy school in London there would be a house of call where the body could be deposited. Occasionally it might be left with a medical student who would convey it by hackney coach. The driver asked no questions about the suspicious looking bundle, but sometimes increased the fare. One enterprising driver stopped outside a police station to obtain his extra payment.

Burke and Hare.

And so we come to anatomical " subjects " obtained by murder ; chiefly associated with the infamous names of Burke and Hare. There were two other convictions, one before these celebrated cases and one after. In 1752 two women were executed for the murder of a boy. They were engaged in what Mrs. Gamp called night-watching and it seems they had promised a body to some medical students. The other conviction, in 1831, concerns two well-known body-snatchers in London named Bishop and Williams—to be known as the " London Burkers." Their method, carried out in several instances, was to dope with alcohol and laudanum and then lower the victim head first into a well. The publicity given to the Edinburgh murders a few years previously is one reason at least why these in London were detected. When the two were hanged at Newgate there was a stampede in the thirty thousand spectators, which produced twenty or thirty casualties for St. Bartholomew's Hospital.

The murders committed by Burke and Hare in Edinburgh were between Christmas 1827 and October 1828. The victims were taken to Dr. Knox's anatomy school. Neither of these two was a resurrectionist. It was almost by chance that they entered into crime. Hare kept a lodging house and when one of the inmates died owing him four pounds, either he or Burke conceived the idea that the body might be sold to Professor Munro (third of that name) at the University. Not knowing the ropes, they were loitering about outside the building at night when they made contact with a young man, who suggested that they should go round to Dr. Knox's school. For the body of this lodger they received seven pounds ten shillings. It seemed such an easy way to obtain money that these two enterprising Irishmen, in the short space of ten months, were able to bring fifteen more anatomical " subjects "; all murdered by enticing the victims to Hare's lodging house, plying them with drink and then smothering them with a pillow. All at Hare's establishment, that is except the last, which is why discovery came. In this case Burke brought to his house a woman he claimed as a relative. He had at the time a married couple named Gray living with him, whom he persuaded to stay away for a night so that this " relative " could have accommodation. Hare was sent for and the victim smothered that night, but still in the house next day. And the situation is explained by Burke's statement in prison that " the murders never would have been discovered had Gray not found the body among the straw." He might have added that conviction would not have followed if Gray had accepted the bribe that was offered instead of going to the police, who went with him to Dr. Knox's premises, where the woman was identified.

Neither Hare's wife, nor the woman who lived with Burke, were ever present at a murder, but of course they knew all about this lucrative trade—in fact it was one of them who first suggested a bribe to Gray, hinting at future payments.

Burke could work as a cobbler, and the fact that a respectable married couple should be in the house suggests that he appeared to be of reasonably good repute. Of which there is the further evidence that one of his victims was a drunken woman being escorted by two policemen in the street, whom Burke claimed as an acquaintance, and was allowed to take, ostensibly home, but in fact to Hare's lodging house.

Burke and Hare were themselves primed with drink when they committed the murders. No questions were asked by the attendants at the anatomy school and they were always encouraged to bring more " subjects." The rivalry between anatomy schools, in which there was some commercial element, was a temptation to encourage a trade in bodies, whereas the origin of robbing graves had come from scientific enthusiasm alone.

The similarity of these sordid murders of friendless people, picked up in public houses and the streets, is varied by two victims which might have aroused suspicions and possibly did ; although it never came to light. One was the body of a healthy and well-known young woman of the streets, and the other of the even better known half-wit—the famous Daft Jamie—whose body almost certainly must have been recognised. It was this murder which so inflamed the public when they heard of it. At the trial the doctors were not called, because Burke's conviction was on the last victim only and this was obtained because Hare turned King's evidence and saved his life with a pardon.

Burke was sentenced on Christmas Day 1828 to be hanged and his body dissected. By the time of his execution, a month later, much of his complete confession was known to the public, who assembled to the number of twenty-five thousand to witness the event; where there was a riotous scene with cries for Hare and Knox.

Public Reaction.

This was by no means the end of Burke. Dr. Munro gave a special lecture on Burke's head. Those pseudo-scientists the phrenologists studied his bumps; more particularly those of benevolence and destructiveness. The crowd, having jeered and cheered at the hanging, still thirsting for more excitement, insisted on viewing the body; so that a show was organised by the police in which some twenty thousand people passed through the anatomy theatre at the rate of sixty per minute.

Perhaps if Burke could have been cut down from the gibbet and driven in a Rolls-Royce hearse direct to a crematorium, there would have been less notoriety and we need not have had an entry in the Oxford dictionary: "burke, v.t. smother; hush-up."

It was a rough world. For some months after this morbid excitement, young hooligans in the streets of Edinburgh would think it a good joke to sneak up behind an unsuspecting stranger and clap some sticking-plaster over the mouth in assumed imitation of Burke and Hare.

There is more justification for the feelings of the mob towards Hare, who had only escaped the gallows by giving away his partner in crime. It was necessary to keep him in prison to avoid mob violence until he could be conveyed one night as an outside passenger on the coach into England. He found it so cold that he attempted to get inside at the first stop, when he was recognised. The news soon spread and when the coach reached Dumfries there was a hostile crowd of eight thousand people from whom Hare, and the inn itself where the coach stopped, could only be protected by taking him secretly to the local jail. Whence he set out on foot in the middle of the night and Hare was last seen over the border near Carlisle, a hunted fugitive with his ultimate fate unknown.

The Edinburgh mob broke all the windows of Dr. Knox's private residence and hung his effigy near-by. He was a born, if rather bombastic teacher, and although he was officially cleared of any knowledge of the crimes, eventually he died in obscurity in London. But he was entitled to his claim that students of his were in practice in most parts of the world. His tragedy and these crimes did much to bring about the Royal Commission which led to the passing of the Anatomy Act in 1832.

Respect for the Body.

That it was part of the sentence of a criminal that his body should be dissected—as indeed was the case with Burke, Williams and Bishop—may have increased the feeling that dissection was a great indignity. There were a few enlightened doctors and laymen, however, who had made this provision in their wills. One surgeon to the Chelsea Hospital in so doing directed that his body "should not be insulted with any funereal ceremony." But for the public in general it was natural that a more materialistic view of a future life should be held. Their feelings are expressed in a broadside printed in Edinburgh in 1711 after Greyfriars cemetery hed been robbed—a few lines of which are as follows:

> "Methink I heard the latter trumpet sound,
> When emptie graves in this place is found,
> Of young and old, which is most strange to me,
> What kind of resurrection this may be."

It is a fact that, until comparatively recent days, the fear of death for many people was tempered by the thought that the body would lie peacefully near relatives until the day of Judgment. To understand the respect paid by mid-Victorians to the grave of a relative, one should read about Old Jolyon's trip down to Dorsetshire in Galsworthy's story called *The Sands of Time.*

Although the mob had been inflamed on a number of occasions in Edinburgh, London and Dublin during the hundred and twenty years before the passing

of the Anatomy Act, we have little recorded evidence with regard to what were the thoughts of the better educated. Some of the eighteenth century writers were on friendly terms with distinguished anatomists, so that perhaps they could see the true value of dissection, which was expressed eventually by Thomas Southwood Smith, Unitarian minister and physician, in his essay on *The Use of the Dead to the Living.*

In *A Tale of Two Cities*, Dickens introduced Jeremiah Cruncher, who was a body-snatcher. Which is in keeping with the times described, but the book was published twenty-seven years after the passing of the Anatomy Act. Thomas Hood is the literary genius who is best remembered in connexion with these people. It is rather surprising that he should exercise his wit so near the date of the greatest scandals ; but of course he was not dealing with murder ; as was the case in the doggerel nursery rhyme of the times :

Burke and Hare
Fell doun the stair,
Wi' a body in a box,
Gaun to Doctor Knox.

About the Park

"They're digging up the Park to find a sixpence ! "

We have it from an authoritative source that the original idea for pulling up the wooden block surface of the front car-park was not because of a sixpence dropped by a certain porter of Scottish lineage. Actually the new improved surface will be a great relief to the many Guy's men who on rainy days have been forced to jump from one block to another in an attempt to dodge the streams and rivers of water. No doubt some of you will recall on occasions the torrent of language coming to your minds when jumping onto an apparently dry patch, your weight caused a minor water spout to shoot up your trouser-leg and then fall back gently into your shoe.

It is not really the job of this note-book to chronicle changes in the nursing staff at Guy's, but we feel that Sister Asquith is well known enough by the present Guy's generation for us to briefly mention that she has left Bright ward to take over the Deep X-ray Unit at Pembury. We are all sorry to see her go and wish her every success in her new job.

Peace once again reigns over the Hospital. No more dances and mid-night parties—no more decorations for Lord Nuffield's statue—no more bicycle races in the underground passages—night sisters can carry on with their work undisturbed by riotous parties—and strangest of all, no one has touched the bare brick walls of Smith's bookshop. In fact *no one at all*, not even in the day. All work has ceased on the building and we cannot imagine for what reason. Perhaps we can find an answer in time for our next edition.

A further sign of " normalcy " in the Hospital—the Tankards have started their rugger fixtures again after the Xmas break. Unfortunately the site of their match was changed at the last moment and one or two players ended up about 25 miles away on the wrong side of London. The remainder set off shortly after 1 p.m. for the right district but through another slice of misfortune failed completely to find the ground. The stragglers dropped off one by one but finally, just after 4 p.m., three stalwarts turned up, to play or at least to explain their lateness. However they were welcomed and entertained royally and by 9 p.m. that night one of them, for some reason, thought he had had a most marvellous afternoon of rugby—he couldn't remember the score but he thought it had been a pretty even game !

"Dare Quam Accipere"

By W. DENYS GIDDEY.
Resident Chaplain.

WE are bound together at Guy's by our common dedication to the purpose and meaning of the Hospital Motto: "*Dare quam accipere.*" The force of this inscription is increasingly apparent in an age which seems to reverse its sentiment and we may yet be hard put to it to substantiate its truth. Yet there is the reverse side of the coin to be considered. Clearly, we can give only what we have first received, accepted, made our own, developed and enriched. This is one of the first principles of all education; it is part of the day by day work within our various Schools at Guy's. There is a clear sense in which "receiving" is prior to "giving."

The universe, the world in which we live, and we ourselves manifest a "given-ness" which is the basis of our existence. We have the world as it is, its nature, composition and manner of working; we have the problems of living in all its complexity; the needs, desires, hopes and ideals of the whole man. These are the *data* of life upon which we work. Our attitude towards these data must depend upon what we consider their final purpose to be—if, indeed, we can discern any purpose at all. It would seem that the present method of scientific enquiry is on the lines of analysis, microcosmically, involving intensive specialization, the findings of which are carefully sifted and co-ordinated. The result of this seems rather like a super-efficient American filing system, with all the "stuff" neatly catalogued in the appropriate places with an index.

This is immensely valuable, but it is not enough. We are losing the vision of the whole. The merely descriptive and functional is obliterating the purposive. We need the synthesis, the macrocosm. This is pre-eminently true in the study of man himself, the fulness of his nature, his purpose, his relation to the rest of reality. The anatomist, chemist, income-tax collector, pathologist, psychologist, poet and publican and a host of others collect a mass of minutiæ about him. But man himself has eluded them; the baby has been lost in the bathwater. There is a whole lot of *data* which is ignored by or put on one side as a result of this loss of the purposive in the study and examination of the *data*. Of such is the spiritual nature of man and the universe. It is set aside either because the various specialists have not the time to relate it fully to their own observations, or because they consider that the "stuff" they work on has demonstrated the comparative insignificance of the other "stuff." There are plenty of other reasons, too, for suspension of judgement or isolation of opinion in this matter.

Now "*Dare quam accipere*" is, of course, a straight quotation from the New Testament. St. Peter is recorded as saying (Acts, Ch. 20, verse 35) "I have shewn you all things, how that so labouring ye ought to support the weak, and to remember the words of the Lord Jesus, how he said, It is more blessed to give than to receive." There are some who assert that the Christian doctrine can be described as "previously accepted" and that it has "little to offer." The truth of a doctrine or philosophy cannot be assessed by the number of people who accept it—a fact which must be thoroughly understood in the sphere of medicine as in any other. Yet it is probably true to say that the honesty and sincerity of the powerful minority who today openly accept and try to practise the Christian Faith has never been greater—particularly as we live at a time when its acceptance is no longer the criterion of "respectability." It is presumptuous and unjust to suggest, as some do, that the Christian Faith is intellectually untenable.

The Christian Faith is concerned with the data of the universe in relation to the *donor*. That is, it is concerned with the whole—the whole man in the wholeness of a purposive reality. It proclaims that this "given-ness" lies

deeper than the mere fact that the universe is given. It claims that there is a Giver of all whose supreme essence is to give Himself to man because man without God is less than fully human. It is significant that the central doctrine of the Christian Faith is the Incarnation—the complete self-giving of God Himself to man. On this doctrine Western culture (what is left of it) is based.

Dr. Arnold Toynbee, the distinguished historian, is but one of the many contemporary scholars and thinkers who have pointed to the danger of living on spiritual capital—clinging to Christian practice without possessing the Christian belief—and who have seen that practice unsupported by belief is a wasting asset, as we have suddenly discovered to our dismay in our generation. Every age is one of crisis (κρίσις=judgment). But it is not our judgment of God or "religion," but God's judgment of us which is being continually expressed in the pattern of our history. There is, however, a judgment for us to make: it concerns the ultimate quality of what we have, ourselves, to give. This, in turn, affects the nature and integrity of our own set of values. Christians believe that we can only give wholly when we have first received wholly. They believe that we receive wholly when we seek and accept God who is alone whole.

"*Dare quam accipere*" is a brave motto in the world as it is becoming. It implies far more than we are often prepared to admit. Its vindication calls for that wholeness, humility and courage which is given only of God, the Supreme Giver of all.

Guy's Diary

ACADEMIC

January

Exhibition. Surgical Department. "Pott's Disease."

30th. 1.00. Dr. Hardwick. Clinical Lecture. "Hæmolytic Anæmia."

3.30. Dr. Forman. Demonstration of Skin Diseases. Pre-clinical Classroom.

February

Exhibition. Surgical Department. "Pott's Disease."

2nd. 1.00. Mr. Wass. Clinical Lecture. "The Symptomatology and Investigation of Diseases of the Colon and Rectum."

4.30. X-Ray Demonstration. Gordon Museum.

3rd. 1.00. Dr. E. B. G. Reeve. Clinical Lecture. "Some Common Disturbances of Salt and Water Metabolism."

2.15. Medical Department. Combined Round. Preclinical Classroom.

6th. 1.00. Mr. Lloyd. Clinical Lecture.

7th. 12.00. Sir Charles Symonds. Neurological Demonstration. Preclinical Classroom.

5.15. Dental Society. Mr. M. V. Slade. "Dentinal Sentinals." Dental Lecture Theatre.

8th. 4.45. Science Club. Mr. P. Clarkson. "Atomic Burns." Staff Common Room. (Tea 4.30.)

9th. 1.00. Dr. R. R. Linton, Surgeon-in-Charge, Peripheral Vascular Clinic, Massachusetts General Hospital. Clinical Lecture.

4.30. X-Ray Demonstration. Gordon Museum.

10th. 1.00. Sir John Conybeare. Clinical Lecture. "Angina Pectoris and Cardiac Infarction."

2.15. Medical Department. Clinico-Pathological Meeting. Pathology Lecture Theatre.

11th. 10.00. Mr. N. R. Barrett, St. Thomas's Hospital. Surgical Departmental Round. Clinical Theatre.

13th. 1.00. Dr. McConnell. Clinical Lecture. "Di-Vinyl Ether."

14th 12.00. Professor W. E. Herbert. Dental Clinical Lecture. "Traumatic Injuries to the Teeth."

OTHER ENGAGEMENTS

February

1st. Association Football XI *v.* Southampton University. (Away).

4th. Rugby XV. *v.* Coventry. (Coventry).
Association Football 1st XI. *v.* West Wickham. (Away).
Association Football 2nd XI. *v.* Old Westminster Citizens. (H.O.P.)
Hockey 1st XI. *v.* Lloyds Bank. (H.O.P.)
Hockey 2nd XI. *v.* Lloyds Bank. (Away).
Hockey 3rd. XI. *v.* Lloyds Bank. (Away).

8th. Association Football. United Hospitals *v.* London Insurance Offices F.A. (H.O.P.)

11th. Rugby XV. *v.* Metropolitan Police. (H.O.P.)
Association Football 1st XI. *v.* Aquarius. (Away)
Association Football 2nd XI. *v.* Ealing Association. (H.O.P.)
Hockey 1st XI. *v.* Blackheath. (H.O.P.)
Hockey 2nd XI. *v.* Blackheath. (Away).
Hockey 3rd XI. *v.* Blackheath. (Motspur Park.)

Reviews

Guy's Hospital Reports. Vol. 98, *Nos.* 1 and 2, *1949.* Edited by R. C. BROCK and W. N. MANN. Guy's Hospital, London. Annual Subscription £2 2s., post free.

OVER one hundred years ago stimulated, it is suggested, by a similar move at St. Thomas' Hospital, there appeared the first edition of the Guy's Hospital Reports—edited, as now, by a physician and a surgeon. Since then, except for an occasional year during the last century and during the upheavals brought about by two European Wars, there has been no lack of persons or material to maintain what is now one of the oldest and most distinguished publications of its kind. The present volume—the ninety-eighth of the series—enlarges yet further the great mass of medical knowledge accumulated in its pages.

The largest and most solid of the articles is by Drs. Allenby and Campbell on Pulmonary Stenosis. It seems probable that these reports, which are now being produced by the team working on congenital heart disease, may well remain for many years as the most detailed and penetrating study which has been made in this field and as such, they are well worth careful study.

Next, and very much in line with the original purpose of the reports, are descriptions of three rare cases; two from the wards of this Hospital and one from a Guy's man working elsewhere. Dr. Brinton gives us a model of clear descriptive writing on a case of argyria; Messrs. Baker, de Navasquez and Maclean present a very interesting case of generalised amyloidosis and, incidentally, an example of great fortitude over many years by the patient who was himself a doctor; Dr. Greenberg shows us that strange deformities of the heart are by no means confined to Guy's.

There follows a very useful discussion by Mr. Reading on mediastinal emphysema and spontaneous pneumothorax following incisions in the lower part of the neck. As the author shows in his opening paragraph this condition receives scant attention in the standard surgical text-books, but it is not uncommon and may be fatal unless promptly diagnosed and treated.

In direct contrast and showing the wide range of the reports, Dr. Desmond O'Neill describes the successful treatment of a case of chronic ulcerative colitis associated with emotional disturbances by psychotherapy—although one would have preferred to have seen a larger series, no one can gainsay this result after the complete failure of standard medical treatment in a condition well known for its resistence to every effort on the part of the physician.

Finally, when the readers interest in clinical medicine begins to flag, there are four articles of historical interest. Dr. Campbell writes an obituary notice for Sir Wm. Hale White, which gives a most interesting picture of the life of one of the fast disappearing group of men who can truly be called General Physicians and the breadth of his mind and outlook is most salutary to us in these days of specialisation. There follow two pieces of surgical history; Mr. Drew describes one, James Blundell of Guy's Hospital, who gave the first transfusion of human blood; Mr. Horton gives a short survey of various methods used in the palliation of œsophageal obstruction; and to finish Mr. Doubleday traces the relationships between Edward Jenner and Guy's Hospital, and it is encouraging to note that this prophet was received with acclamation by the Physical Society.

There is no better way of concluding than to quote the review of the Reports given in the *Lancet* of 1862. "So long as Guy's Hospital can point to this issue of good, practical reports, amply illustrated and well printed, it may be somewhat excused for that air of self-laudation which, it is generally admitted, is one of its characteristics."

J. R. TROUNCE.

Penicillin—Its Practical Application. Edited by SIR ALEXANDER FLEMING, 2nd Edition. Butterworth. *Price* 30*s.*

This book, written by thirty-four well-known contributors, gives an authoritative account of the history, chemistry, pharmacology, bacteriology, and clinical uses of Penicillin. It makes clear that injection of procaine penicillin in oil is likely to become the method of choice for administering penicillin for almost all purposes in future.

In each chapter the more important original papers are quoted and the addition of accounts of streptomycin, chloromycetin and aureomycin adds appreciably to the value of a useful work of reference.

Ophthalmic Medicine. By JAMES HAMILTON DOGGART. Churchill. *Price* 32*s.*

This is no standard text-book of ophthalmology. Instead it has been written with the main object of emphasising " how intimately the eye is linked, not only with adjacent structures, but also with remote parts of the body. Surgical technique, therapeutic details and the science of preventive ophthalmology are among the important subjects omitted."

To the person specialising in ophthalmology this book is almost indispensible, but even more will it prove of tremendous value to the general physician. The eye, structurally and functionally, serves as a prominent index of health and an essential element in diagnosis. The average student is satisfied so long as he can make out the pupillary reactions and get a vague view of the fundus. But the eye can be a mine of information, even without the use of the ophthalmoscope, as a few selected chapter-headings from this book will immediately suggest—" Syphilis," " Tuberculosis," " Zymotic and other Acute Febrile Diseases," " Endocrine Disorders," " Diabetes," " Renal Disorders," etc.

Even if he cannot afford to buy it, every undergraduate should peruse this book during his medical appointment and to have it as a work of reference would be better still.

The production is of the very highest standard and the illustrations are of excellent quality throughout—a tribute to the house of Churchill.

Infant Nutrition : Its Physiological Basis. by F. W. CLEMENTS. Wright. *Price* 21*s.*

In many respects infant feeding remains as a compounding of custom, instinct and fetish, with lip-service to modern science. A mass of nutritional information has of course been accumulated but, unfortunately, it is largely dispersed throughout numerous journals and original papers. Dr. Clements has therefore performed a most useful service by presenting the facts in a clear and orderly fashion.

This book, then, contains not only a wealth of data but also indicates the manner in which the scientific findings can be applied in practice. The lists of references are useful as well.

Though one may not necessarily agree with all the conclusions offered by the author, his work will prove enlightening to everyone concerned with infant feeding and it will well repay study by any student during his children's appointment.

Hospital Administration For Women. By EMILY E. P. MACMANUS. Faber & Faber. *Price* 35*s.*

A second edition of Miss MacManus' book is very welcome, for books on this subject, written for women, are rare. Matrons, sister tutors, ward and departmental sisters and senior nurses will find it useful, whether working at home or abroad. The book was revised at a difficult time, when the scene was changing rapidly, and the author asks for forgiveness for the omissions.

The preface to the second edition is a masterpiece, and should be read by every administrator, man or woman, or ministry official. Refering to nursing under new systems or organization,—" . . . no short cuts, no quicker or cheaper way . . . " and the naive remarks about the National Health Service, " . . . if it be wisely administered, the patient will not suffer," are most appropriate.

Miss MacManus' high ideals of nursing and service to the sick permeate every chapter, and provide a sound foundation on which to build for the future.

D.M.S.

Correspondence

"I've Stood in This 'Ere Market Place—"

SIR,—Although I fully agree with the strictures passed by El Hakim Pasha in your issue of December 31st upon doctors who gratuitously provide manufacturing chemists with advertisements for their products, and with the caveat about acetyl-salicylic acid, I fear that the prescription he advises for duodenal pain is also not without danger in the hands of the unwary owing to its bromide-content. I regard ten grains of potassium bromide thrice daily as high dosage. Apart from minor effects, e.g. bromide acne, such a dose taken regularly for some time might well produce bromide-intoxication. Of the many things I learnt from Sir Maurice Craig, one was the value of bromide *if given in doses much smaller than those usually prescribed*. He would seldom give more than 3 to 7 grains once daily.

Nowadays phenobarbitone, of course, has to a great extent taken the place of bromide in states of tension, but I still meet with cases of mild bromide-intoxication. Some years ago a number of very severe cases were published by the medical superintendent of an asylum, and he commented on the risk of the stock bromide mixture being thoughtlessly handed out over long periods by doctors to their panel patients, who were regarded as "neurotics." It is such a dangerous diagnosis. I often wonder how many women with achlorhydric anæmia are so labelled.

Yours, etc.,

7 Devonshire Place, W.1. H. W. BARBER.

The Residents' Play

SIR,—The Residents' Play is once more in production, and it will be presented in the Physiology Theatre on the nights of February 19th to 24th, inclusive.

Unfortunately the problem of cost of this play becomes more difficult each year. It costs the Residents about £200 and in this respect we would like to point out that this figure compares very favourably with the pre-war cost, which was usually about £250. It is impossible, owing to the construction of the Physiology Theatre, to make any charge for seats. Passing round collecting boxes during the performance is illegal, a nuisance to the audience and embarrassing to the Residents.

If the requests for seats are any index as to the play's popularity we feel that there should be no difficulty in obtaining this sum of money by subscription. It is unfortunate that the seating accommodation in the Theatre is so limited that the request for seats are usually more than double the available accommodation. In fairness therefore, the giving of a subscription to the play cannot be considered a guarantee of good seats.

Subscriptions will be gratefully received by, and seats may be booked, on application to the President of the Residents, The College, Guy's Hospital.

Yours, etc.,

The College, Guy's Hospital, S.E.1. T. R. L. FINNEGAN. *President of the Residents.*

Voting by Post

SIR,—We feel that the following extracts from a letter published in the *Sunday Times* on January 22nd by Mr. Gammans, M.P., contain facts of vital importance to many people in the Hospital, which may have escaped their notice:—

"... Voting by post is possible for those people who are bed-ridden, physically incapable of getting to the poll, or temporarily in hospital or a nursing home; or for any man or woman who will be away from home on February 23rd, for reasons of business ... All postal voters must be registered before February 3rd. So applications must be made at once to the Electoral Registration Officer at the local Town Hall ..."

Yours, etc.,

The Nurses' Home. TWO VOTERS.

Honor Oak Park

SIR,—May I use your columns to inform Clubs' Union members of an alteration in the charges at Honor Oak Park ?

At a recent meeting of the Clubs' Union Council, it was decided to reduce the charge of admission to the covered stand for student members of the Clubs' Union, and these arrangements have now been completed. For those affected, this is now 1/-, instead of 2/- and arrangements have been made for this to be effective from 28th January, 1950.

On production of the current Clubs' Union membership card, the member and one guest will be admitted to the covered stand at this reduced rate. For this arrangement to work adequately, it is essential that the current membership card be produced by the member if so requested.

Arrangements covering admission to the ground remain unchanged.

Yours, etc.,
P. G. LARGE,
Honorary Secretary.

Guy's Hospital, S.E.1.

Tickets for the Ruby International

SIR,—I would like to suggest that in future tickets for the International Rugby Match at Twickenham, allocated to the Rugby Club, are better distributed.

It has been the custom that the first fifteen have preference over all others in obtaining tickets and after their needs have been satisfied, the Senior and then the Junior staff have their requirements fulfilled. What happened to the remainder of the tickets, if there were any over, was never quite clear.

I understand that 60 tickets were allocated to the Club this year. It is of interest that the number of tickets allocated is directly proportional to the number of playing members, of whom a very small proportion get tickets. I would therefore like to make the following suggestions :—

After the needs of the first fifteen have been met (and there can be no doubt that they should have first choice) that, with certain exceptions, e.g. the Dean of the Medical School and the Superintendent of the Hospital, the tickets are distributed by ballot as is the case with almost every other Rugby Club.

Those eligible to apply for tickets, I suggest, are members of the Senior and Junior staff and the playing members of the Rugby Club.

I am sure this method would save the Secretary of the Club, and his advisors, a great deal of unpleasant badgering which I know they have received.

I should be most interested to learn exactly how the tickets were distributed this year.

As an ex-member of the first fifteen and a member of the Junior staff, I feel that my suggestions are in no way impertinent.

Yours, etc.,
G. D. SWANN.

Belchers Farm,
Nazing, Essex.

Boxing

A Boxing Tournament in aid of the funds of the Pavy Gymnasium is to be held at Seymour Hall, Marylebone, W.1., on Monday, 20th February, at 7.15 p.m. In addition to the team match between Guy's Hospital A.B.C. and The Metropolitan Police (Z Division) A.B.C., there will be four special contests. Prices of admission are : 12/6, 10/-, 7/6, 5/-, 2/6, all numbered and reserved. Tickets are obtainable from the Counting House, Guy's Hospital, S.E.1. (Hop 3334) ; G. A. R. Winston (Hop 1014) ; J. A. Pollock (Hon. Sec.) and Seymour Hall, Marylebone, W.1. (Pad 8018).

Sport

RUGBY FOOTBALL

Guy's *v.* Wasps

At H.O.P. Lost 11—12.
14th January, 1950.

The Guy's team suffered their first defeat in seven games when they lost by one goal and two penalty goals to three tries and a penalty goal, to the Wasps. The visitors attacked hard from the start and soon missed several penalty kicks. The game was keenly fought out forward, but was inclined to be sluggish and uninteresting. Then the Wasps went ahead by a penalty goal. This was followed by a defensive misunderstanding which allowed them to increase their lead by another try.

Immediately after half-time Guy's took the initiative and were soon on the Wasps' line. There then occured five minutes during which there were three injuries, none, happily, serious, and when play resumed the fire had gone from the Guy's team. It was not surprising, though none the less dissapointing, to see two Wasps slip over for rather easy tries. Just as the crowd in the stand were about to go home, something happened to the team and they began to play together. D. le Clus kicked a fine penalty goal. The ball was kicked off, caught by Wilson, passed to Rademan who ran hard down the middle and passed to Bellis, who ran even harder, and gave Williams the scoring pass. D. le Clus converted. Two minutes later he hit the upright with another penalty kick and then amidst wild jubilation was successful. This left Guy's one point behind and away they went to the attack with the Wasps hanging on. Several times a score nearly came but time was passing. All too soon came the end of one of the most exciting second halves seen at H.O.P. for a long while.

PROSPECTS FOR HOSPITAL CUP.

The Cup competition starts in February and the indications are that it will be quite an open fight between at least six hospitals. Examination of the results of the various teams is usually profitless as form fluctuates through the season. London, Middlesex, St. Bartholomew's St. Mary's, St. Thomas's and Guy's all have very similar playing records and show remarkable consistency in the sides beaten or failed to beat.

The holders, St. Mary's, have a strong side with particularly good backs in Beatson, Simmonds and Sullivan. They are always a hard side to beat and seem likely to appear in the final. They are faced with a tough prospect in the London in the semi-final. Here again strong backs are the notable feature with Rowlands and Phillips being outstanding.

St. Bartholomew's seems to have a uniformly strong side and may do well. St. Thomas's possess two first-class halves in McCance and Maeckelburghe and with a good scrum may cause Guy's some trouble. It seems likely that another struggle between Guy's and the Middlesex will take place in the semi-final. Under their captain, Shields, the Middlesex pack is formidable and the back division is capable of scoring tries. Guy's in return can offer as good a set of forwards as any in the Hospitals and a backline which improves all the time.

It would be a rash person who would forceast the ultimate winner but the writer is quietly confident of the outcome.

ASSOCIATION FOOTBALL

Guy's *v.* Alleyn Old Boys

At Herne Hill. Drew 1—1.
14th January, 1950.

Guy's continued their Southern Amateur League programme after a break of six weeks, with a visit to Alleyn Old Boys' ground at Herne Hill.

Play opened with the Old Boys attacking strongly and only close marking by the Guy's defence prevented an early deficit. However, the Guy's team gradually settled down and Cornhill on the right wing put across some accurate centres only to see them come to naught through hesitant shooting by the remaining forwards.

Ten minutes from half-time Harris, having switched to inside-left, saw his shot deflected by a home defender out of the goalkeeper's reach into the net. Half-time came with no further score. On the recommencement of play Guy's were again pinned into their own half and after 30 minutes the Old Boys scored. Their outside-right rounded the Guy's back and put the ball across the goal where the home centre-forward was waiting to finish the movement. The final whistle came with the points divided.

The muddy ground proved too much for the Guy's forwards who like a firmer ground. However, all played their parts manfully and the main points were Lipington's sliding tackles, Matthew's defence and Southgate's holding of the opponents' fast centre-forward. It was his first appearance in a Senior League match and he acquitted himself very well indeed.

Prince played his usual constructive role and the fact that Guy's scored only one goal was certainly not his fault.

Team: A. Fearn; D. Lipington, M. Bishop; D. Matthews, P. Southgate, A. Swift; B. Cornhill, D. Harris, C. Leckie, A. Prince, D. Oldfield.

Guy's 2nd XI. *v.* Alleyn Old Boys 2nd XI.

At H.O.P. Lost 3—4.
14th January, 1950.

SOUTHERN AMATEUR LEAGUE

Guy's *v.* Old Stationers

At H.O.P. Lost 2—3.
21st January, 1950.

Although Guy's opponents were not a good side they played hard, keen football for the duration of the game and as a result deservedly left the field the victors.

The game played in a keen wind, but otherwise ideal conditions, was open, but emphasised once more that the Hospital weakness lies in our defensive play, and not with the attack. On winning the toss, Guy's chose to play with the wind at their backs and were very soon one goal up. The result of some good mid-field play culminating in a very fine first time shot by Sturdy.

Old Stationers retaliated with some thrusts down either wing, which were cleared by a defence which even then appeared unsettled. After some scrappy mid-field play, a long ball from Prince reached Oldfield at left-wing, a short run and a long shot were rewarded by a further goal—a fortunate goal, but nevertheless one that counted.

Old Stationers replied strongly and a ball which ran free to their unmarked outside-left was centred, and in the resulting scrimmage in front of the goal a Guy's man became temporarily, although illegally, the goalkeeper and tipped the ball over the bar. Fearn was at that time out of position, having been injured during a tackle. A goal came from the ensuing spot-kick.

Thus at half-time Guy's crossed over leading by the odd goal of three. Old Stationers, making use of the strong wind, cleared hard up-field and were thus pressing frequently, forcing the Hospital to concede several corners. From one of these came the equaliser.

The light ball was carried by the wind in towards, but just beyond, the far goal post, a ball which under normal circumstances should have been held by the goalkeeper. But a misunderstanding, which occurs even in the best regulated sides, found the goalkeeper leaving the ball for a defender, whose surprise when the ball struck his shoulder and entered the net was fully justified.

Thus the opposing sides were again on equal terms. At this point the "bite and pep" exhibited by the Hospital eleven was replaced by an unbelievable apathy, and deservedly they were soon one goal down.

This seemed to sting the home side into further active participation in the game, and the last fifteen minutes were all Guy's, but the effort was too late and the game resulted in yet a further defeat and loss of two points in the League Table.

Team : A. Fearn; D. Lipington, M. Bishop; G. Wilcox, D. Allen, A. Swift, B. Cornhill; A. Prince, C. Leckie, E. Sturdy, D. Oldfield.

SOUTHERN AMATEUR LEAGUE RESERVE SECTION

Guy's Reserves *v.* Reigate Priory Reserves

Away. Lost 1—3.

21st January, 1950

FRIENDLY

Guy's 3rd XI. *v.* Imperial College 3rd XI.

Away. Won 5—2.

21st January, 1950.

HOCKEY

Guy's *v.* South Saxons

1st XI, Lost 1—6

2nd XI. Lost 3—4.

7th January, 1950.

Both 1st and 2nd XI's left the Hospital in a bus for Hastings at the unearthly hour of 9.15. There was some delay due to picking up the odd member who was still in bed but we were eventually on our way and to the peaceful sound of Dick Barton's escapades wiled away the rather tedious 3 hour journey.

After lunch and a certain amount of ill-advised beer we were taken to our respective pitches. From the beginning the 1st XI showed that they had had a good Christmas. The ground seemed just that little bit higher than one thought, so that divots were flying with more accuracy than was ever achieved with the ball.

By half-time the score was 2—0, more, it seemed, because the Saxons scored when they shot, than to any overall superiority.

The second half was worse though. It needed all one's imagination to think up enough excuses for our lack of skill. The Christmas holiday and the tiring bus journey were soon exhausted. Blake had two near misses, Duckworth lofted one over the goal and Opie hit the posts and still they continued to flick the ball delicately through our frustrated defence. Eventually Blake sneaked one in to make the score 5—1, but South Saxons merely added one more as a snub.

The only good thing to be said of the Guy's playing was that everyone was equally bad so no one could blame his fellow. Perhaps we shall have our revenge at Folkestone.

The 2nd XI faired slightly better, but were also beaten 3—4. Since only a few members of the usual 2nd were playing this was a very creditable effort.

SQUASH

In the semi-final of the Hospital Cup against St. Mary's played on January 19th, Guy's won a close match by three matches to two.

Team : D. R. Pugh, P. L. Pickett, C. J. G. Menzies, D. E. Blake, M. A. C. Lyon.

P. L. PICKETT,
Hon. Sec., Squash.

The Rugby Ball

The Annual Hospital Rugby Ball was held at the Hyde Park Hotel on Friday, 20th January. The Guest of Honour was Lord Cunliffe, and more than two hundred people attended.

Last year no Ball was held, but instead a dance took place in July. Since then there has been much controversy: many felt that it would be better to retain the dignity of the Ball at the traditional time of year. Certainly those present appeared to enjoy themselves and the organisers, Messrs. M. Boyd, J. Kirkbride and J. Robinson, must be congratulated on their excellent organisation in every detail.

The band was first rate. It played with rhythm, and almost continuously from 9 p.m. to 2 a.m. (unlike many we know who play jazz music for the benefit of themselves rather than those dancing.) Need we add that the bar is bound to be a success at a rugger affair; and the buffet was pre-war. Chicken, smoked salmon and lobster were being served in liberal quantities. Those of us who had already dined felt at a grave disadvantage in the face of so much plenty.

There was a raffle of three bottles of spirits; there were no claimants to the first three numbers called out. Perhaps the bar had taken its toll?

In conclusion we were glad so many distinguished Guy's men came, and we hope that all Rugger Club affairs will continue to be well-supported.

J.R.F.B.

Hospital Information, etc.

NOTICES

GUY'S HOSPITAL CHRISTIAN UNION

Meetings are now held every Thursday during term at 5 p.m. in the Pre-clinical Classroom (4th floor Outpatients' Block), to which all members of the Hospital community are welcome. Details of these meetings may be found on the notice board in the Colonnade. Of special interest this term is the showing of two "Fact and Faith" films, entitled "God of Creation" and "God of the Atom" in the Anatomy Theatre on Tuesday, February 7th at 4.30 p.m. These colour films are noted for their excellent photography and scientific accuracy, having been greatly appreciated when shown in other hospitals and universities.

A. T. TARRANT.
Secretary.

GUY'S HOSPITAL REPORTS

1949, Volume 98, Parts 1–2 (double number)

Contents.

Campbell, Maurice. Sir William Hale-White. pp. 1-17.

Allanby, K. D. and Campbell, Maurice. Congenital Pulmonary Stenosis with Closed Ventricular Septum. pp. 18-53.

Reading, Philip. Emphysema of the Mediastinum and Spontaneous Pneumothorax following Incisions in the Lower Part of the Neck. pp. 54-68.

Drew, A. J. James Blundell and Blood Transfusion in Man. pp. 69-87.

Brinton, W. D. Argyria: Report of a Case. pp. 88-94.

Baker, G. P., De Navasquez, S. and Maclean, K. S. Primary Generalised Amyloidosis in a Young Adult. pp. 95-109.

Greenberg, M. J. An Unusual Congenital Heart Lesion. pp. 110-112.

Maine, J. L. F. and O'Neill, Desmond. Ulcerative Colitis: Treatment by Psychotherapy pp. 113-117.

Horton, R. E. Palliation of Oesophageal Obstruction. pp. 118-120.

Doubleday, F. N. Edward Jenner. pp. 121-125.

PAPERS BY GUY'S MEN

Blackburn, Guy. Non-Toxic Swellings of the Thyroid. *Nursing Mirror*, 1949 (Dec. 30), p. 281.

——. The Treatment of Thyroid Disease. *Ibid*,. 1950, (Jan. 6th), 307.

Brock, R. C. Refresher Course for General Practitioners: The Early Diagnosis of Bronchial Carcinoma. *Brit. Med. J.*, 1950, i, 116.

Campbell, Maurice and Reynolds, Geoffrey. The Physical and Mental Development of Children with Congenital Heart Disease. *Arch. Dis. Child H.*, 1949, **24**, 294.

Layton, T. B. Tonsils and Adeniods, *Med. World*, 1950 **71**, 674.

Reading, Philip. "Autemphysesis." *Brit. Med. J.*, 1950, i, 105.

Corrections.

The following papers were wrongly published in the last issue of the "Gazette."

Burn, J. H. and another. The Action of Noradrenaline. *Brit. J. Pharmocal*,. 1949, **4**, 373.

Clarkson, Patrick. Surgery of Orthodontics. *Brit. Surg. Pract.* (Butterworth), 1949, Vol. 6.

——. Reconstructive Surgery of the Nose: Reconstructive Surgery of the Ear. *Ibid.*, 1949, Vol. 7.

AWARD OF BLUES

At its meeting on 20th January, 1950, the Clubs' Union Council approved the following recommendations of the Blues' Committee:

Blues	Half-Blues
Athletics.	
F. G. Thomas	—
Boat Club.	
—	G. A. Taylor
Cricket.	
J. F. Woodford	D. Lipington
H. L. Prentice	P. Pickett
D. E. Blake	A. F. Jones
T. Smith	K. W. Gray
Tennis.	
C. H. Opie	D. Duckworth
J. Annen	J. Lindsay
	P. Hirsch
	L. Mackey
	F. A. F. Biddle
Swimming.	
—	D. P. Anderson
Hockey.	
F. H. Walker	—
Sailing.	
—	J. Bradbeer
	J. Rees
	J. Lindsay
	R. Baxter
Squash.	
T. M. Price	—

NEW YEARS HONOURS

ROYAL NAVY

Promotions.

Surg. Lt. Cmdr. (D) K. E. J. Fletcher, promoted Surg. Cmdr. (D).

CHANGE OF ADDRESS

J. K. Martin, M.B., B.S. c/o. Winnipeg Clinic, Winnipeg, Manitoba, Canada.

M. G. Trott, L.D.S., R.C.S. Droxford House, Charles Road, St. Leonards-on-Sea, Sussex. Tel.: Hastings 613.

CHANGE OF NAME

On January 11th, 1950. H. R. Harvey to H. R. Harvey-Moffatt.

BIRTHS

BUCKLEY.—On January 20th, 1950, at Fernwood House, Newcastle-on-Tyne, to Etta (née Cameron) wife of D. C. Buckley, L.D.S., R.C.S., of Stockton-on-Tees—a daughter.

HUMPHREYS.—On December 29th, 1949 to Evelyn (née Fisher) wife of Dr. W. H, Humphreys—a daughter (Catherine Ruth).

MARRIAGES

HADOLL—WATSON.—On December 3rd, 1949, at Tunbridge Wells, Kent, Maurice H. Handoll, M.B., B.S., to Freda Watson, S.R.N.

MERRYWEATHER — MUNKLEY. — On December 31st, 1949, at Stoke Canon, Devon. Reginald Merryweather, M.B., B.S., to Patricia Helen Munkley, S.R.N.

STRUTT — FERGUSSON FODEN.—On December 15th, 1949, at Loughborough, Leicester, Gordon Strutt, B.D., of Holy Trinity, Leicester, to Mary Fergusson Foden, S.R.N.

DEATH

GREENFIELD.—On January 11th, 1950, Dudley George Greenfield, M.D., F.R.C.S., of Rushden, Northants. aged 71 years.

Pds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1606 11th February 1950 Ninepence

PASSIM

ON Saturday March 4th, the Annual Clinical Meeting of the Guy's Hospital Dental School will take place. For the benefit of Guy's men who would not otherwise know in advance of the arrangements which have been made for them, we publish on the centre pages of this issue a reproduction of the programme. Quite apart from welcoming them back to Guy's, we feel that our visitors may well be impressed by the alterations and renewals which have taken place within the last few years. The building has been completely redecorated and entirely re-equipped and it now provides excellent conditions for the training of students and the treatment of patients.

Guy's Dental men are reminded that February 17th is the *last day* for sending in application forms for the Annual Dinner which this year is to be held at the Park Lane Hotel on the same day as the Annual Clinical Meeting. *i.e.* Saturday, March 4th.

IN our opinion sport is as important in the training of a doctor as any academic study. Doctors seldom continue to play games. Indeed many of the best doctors play nothing more violent than bridge or poker. We think, however, that many of the qualities which make up a good doctor are learnt better playing games than in any other way. Quickness of thought; speed of decision; self confidence; independance; tenacity; an infectious zest for life—surely all these are the essence of good doctoring. There has been many a surgical decision taken suddenly by a mind taught to think fast on the rugger field. There has been many an obstetric case managed successfully by that same watchful patience and quick decision found in the hunter. The mountaineers self-reliance is invaluable to a doctor caught without help in a country emergency. The yachtsmans' judgement learned in calm and squally weather may well count, years after, in deciding to cease waiting expectantly and to act. We doubt if these strong qualities are learned by students who, to the exclusion of games, spend their time studying art, or music, or literature—those adornments to education which may enrich but do not strengthen the character.

Soon now the first of the ex-service students will be taking qualifying exams and leaving the Hospital. In three years time they will all have been replaced by post-war students, five or ten years younger. The ex-service generation, learned—had forced upon them by the war—many independent and self-reliant qualities. The younger generation are just as good as these but they have had no chance to hammer out their characters such as had the war-time pilot, the sailor or the infantryman. Maybe they are better off without such a chance, but they need a substitute. We believe that they will be better men and better doctors if games and sports become as important in their hospital education as dissecting dogfish, attending lectures and reading books. We believe they will be better for playing too many games than for working too hard, reflecting too little, ending up perhaps with a prize or two, but ending up too with a head full of facts and an undeveloped character.

WE regret to record the death of Joseph Whitbread on January 28th. For many years he was Head Porter and will be remembered by many generations of Guy's men. An obituary notice appears on another page.

About the Park

Last week Dr. H. C. Cameron gave an address to the Pupils Physical Society. He was speaking on the subject of " Joseph Lister and the Beginnings of Modern Surgery " and we hope to publish his address in the *Gazette* shortly.

Dr. Cameron, who was introduced by Mr. Ripman, recalled that years ago when his father (who was a close friend of Lister) was speaking to the same Society on the same subject, he was introduced by Mr. Ripman's father.

Our readers will be very glad to know that Dr. Waterfield who has been seriously ill since the middle of last year has now started work again. We all hope his recovery will continue.

There was a fire near the kitchens a day or two ago. It was only a measly unexciting little fire, but two magnificent scarlet fire engines both splendidly polished came along to put it out. For a moment we thought there was more trouble with the " Bookstall " which shows promise of being ready in time for the Festival of Britain—but not much sooner.

We have it on good authority that Whitbread and a certain Senior Honorary still with us—God bless him—decided one night (probably a Saturday, we are told) that a Buffalo's Club ought to be formed. Their efforts outside the Ship and Shovel to imitate this mighty beast were not appreciated by the local citizens intent on sleeping. Which, we suppose, is why the Club was never formed. Alas !

The weird sounds coming from the Physiology Theatre and from the bathrooms in the College are sure signs that the Residents' Play is in rehearsal. The secrecy in which the play is always shrouded does not prohibit us from saying that we have heard this fiftieth anniversary production promises to be well up to the standard of the best of its predecessors.

Overheard in Gynæ. Out Patients last week :—

Gynæcologist : " Look, love, have you had any children ? "
Patient : " Oh yes Doctor, don't you remember ? Thanks to you I had one four years ago."
Gynæcologist : " Now, Now, lady, you're embarrassing me."

A superb physiological demonstration took place the other day when Professor Spurrel gave a Clinical Lecture on " Hunger and Thirst." During the first part of his lecture he discussed " Appetite." His eloquence in describing the conoisseur pouring out wine, enjoying its boquet, tasting it and sipping it, proved beyond doubt to his audience smacking their lips that—" Appetite is Juice." Could anyone else, we wonder, leave an entire theatre full of students within an hour of their lunch, so hungry and thirsty.

Obituary

Joseph Henry Whitbread died in Addison Ward on January 28th, 1950, aged 73 years.

A veteran of the South African war, he came to Guy's as Head Porter in 1908, having previously worked at St. Bartholomew's Hospital for five years. He was away from the Hospital during the 1914-18 war serving in the Royal Artillery, and he fought at Gallipoli where he was wounded.

He returned to Guy's after the war and remained as Head Porter until his retirement in April, 1945.

" Joe " Whitbread was a familiar figure, with his top hat and long moustache, to all staff and visitors to Guy's. He impressed his personality and courtesy on all and sundry. The Hospital was indeed fortunate in having such a loyal and faithful servant for so many years. His passing will be mourned by many generations of Guy's men and women, and we offer our sincerest sympathies to his widow and daughters.

JOSEPH HENRY WHITBREAD

Pot Belly in Children

By MARK RAVITCH, M.D.,
Surgeon to the John Hopkins Hospital.

A Clinical Lecture delivered in Guy's Hospital Medical School on 21st June, 1949

LADIES AND GENTLEMEN,—Gathered together under this title are a group of heterogenous conditions occuring in infancy and childhood which eill serve for a general exposition of most abdominal conditions of interest to the pediatric surgeon.

Imperforate Anus

We can dispense with the discussion of ordinary constipation and fæcal impaction which do, in fact, occasionally cause very considerable abdominal distention in children with poor bowel habits. A grave condition of this sort is that which is occasionally seen when stricture formation follows inadequate repair of an imperforate anus. Perhaps the most important item in the after care of the child operated upon for imperforate anus is repeated and persistent dilatation of the new anus. If this is not done, stricture may ensue, and where this in turn is not recognised, severe constipation of an astonishing degree may result. We have seen such cases so long neglected that the ensuing dilatation of the colon and distention of the abdomen has been mistaken for Hirschsprung's disease. This may seem quite absurd at first glance. However, a few years ago in reviewing our experience in the treatment of Hirschsprung's disease, I had occasion to look up those cases at our hospital which had been treated by sympathectomy. As you know, Wade and Royle in Australia in 1927 while performing lumbar symphatectomy in an attempt to relieve the difficulties of neurological patients with congenital spastic disorders, found that a number of these patients were coincidently relieved of life-long constipation. This finding led to a world-wide application of lumbar sympathectomy to the treatment of Hirschsprung's disease. In our hospital, also, three or four children were at once so treated and it embarrasses me to admit that one of these was a patient whose history quite frankly and straight forwardly stated that he had had a repair of an imperforate anus with subsequent stricture formation. Needless to say, that patient obtained no relief from sympathectomy and ultimately was relieved by an anal plastic procedure.

Hirschsprung's Disease.

There is some difficulty in talking about Hirschsprung's disease because it is not a disease which has any absolutely pathognomonic features. In the past, we have diagnosed as Hirschsprung's disease conditions in which there has been constipation and great dilatation of the colon dating from birth. In reviewing a good many histories of patients with Hirschsprung's disease, it seemed to me that the single, most important fact common to these histories was the inception of the stubborn constipation in the immediate neo-natal period. In general, severe constipation, which does not start for a year or two after birth, is probably not Hirschsprung's disease and in true Hirschsprung's disease one will nearly always get a history of difficulty with defæcation dating back to the child's stay in the obstetrical nursery. Beyond this, the diagnostic criteria are essentially non-specific. A huge distended abdomen, flared costal margins, general state of malnutrition and a barium enema showing huge atonic dilatation of a considerable part of the colon are all part of the usual picture but are not specific. At times, the entire colon from the cæcum to the anus may be tremendously dilated, and at other times, the dilation is chiefly in the left side which may also be greatly redundant. In some patients, there is a relatively narrow rectum which changes abruptly into a tremendously dilated sigmoid, while in others the rectum is as large as the sigmoid. Of great interest to you will be the work of Bodian and Stephens and their co-workers at the Hospital for Sick Children at Great Ormond Street. For many years it has been rather glibly stated in the literature that Hirschsprung's disease is due to some type of neurogenic dysfunction, and many attempts have been made to discover some histological peculiarity in the colons of children with Hirschsprung's disease. Until now, most of these attempts have met with failure. This has not dissuaded investigators from attempting a large variety of treatments based on such hypotheses. All manner of

pharmaceuticals have been tried therapeutically—those which stimulate, and those which depress, either the sympathetics or the parasympathetics. Lumbar sympathectomy has apparently offered some benefit to a number of patients. Bodian and Stephens report that in those cases of Hirschsprung's disease, and cases of this type they consider to be the only true cases of Hirschsprung's disease—in which the rectum is quite narrow and passes suddenly into a tremendously dilated sigmoid, they find an absence of ganglion cells in the narrow segment and a normal distribution of ganglion cells in the myenteric plexuses of the dilated segment. If these findings are substantiated, this is a most important contribution to the knowledge of this disease. Stephens, in common with Swenson in Boston, has suggested a resection of bowel limited solely to this narrow segment. We have ourselves preferred to resect most of the left colon beginning just to the left of the middle colic artery, going well down into the pelvis, performing a direct anastomosis. We have been fairly well satisfied with our results and fear that the more limited resections of Swenson and Stephens may not prevent the volvulus of the redundant sigmoid which is a fairly common cause of death in these patients. This patient with Hirschsprung's disease is a boy of six with lifelong constipation which could never be managed at home. The barium enema shows the tremendous redundancy of a hugely dilated sigmoid, the dilatation proceeding apparently all the way to the anus and involving most of the descending and transverse colons. The preoperative evacuation film shows very poor function of the bowel. The postoperative film, after resection of the left colon in the fashion indicated, shows now what simply appears to be a normal colon without any tremendous redundancy or great dilatation except for the segment below the anastomosis which is still large. This patient improved slowly after operation but gradually became more and more nearly normal until he is now independent of enemas. The second patient whom we have chosen to show is a little fellow of five with a tremendous pot belly and sway back. He had been constipated almost from the moment of birth and had repeated bowel impactions which required courses of enemas for relief. On two occasions he had been hospitalized, acutely ill with what sounded very much like volvulus of the sigmoid, and on the second of these occasions, he had gone into status epilecticus which was controlled finally only by general anesthesia. In him too, the barium enema shoes enormous redundancy of the sigmoid and great dilatation of the entire colon, and once more we resected the left colon. The colon, after operation, when filled with barium is still considerably dilated, but it contracts and empties well, as seen in the evacuation film. He has had only two or three mild bouts of constipation in the three years since his operation. On each occasion, the bout of constipation coincided with an upper respiratory infection.

Reduplication of the Intestine.

The next patient, a little boy of four, was as hugely distended and severely constipated as any patient with Hirschsprung's disease we have ever seen and was, in fact, presented at Surgical Staff Conference as a case of Hirschsprung's disease. He had actually been sent to the hospital because of an anomaly of his penis with two small openings, from one which the urinary stream came while from the other came an occasional dribble of urine. We could not before operation explain the fact that when his colon filled with barium there remained huge gas filled shadows which looked exactly like loops of colon which had not filled with barium. At operation, the diagnosis was immediately apparent. The abdomen was filled by an enormous loop of what appeared to be large bowel and proved, in fact to be a duplication of the colon. This child had a complete duplication of the colon from the cæcum to the bottom of the pelvis. In the pelvis, the reduplicated colon, which lay throughout on the outside of the normal colon, ended blindly. On the right side, the reduplicated colon was continuous with the normal cæcum after which it became densely adherent to the normal colon. As in most cases of duplication of the intestinal tract, the tubes had a completely fused muscular coat on their facing surfaces so that it was impossible to separate them and for most of their length both colons were removed. On the right side, we were able to salvage the cæcum, and on the left side, we were able to peel away the mucosa of the blind pouch of reduplicated colon leaving behind the intact normal rectum and lower sigmoid for subsequent anastomosis to the portion of cæcum remaining. It was further elucidated that this patient had two separate bladders

separated by a mid-line septum and that each had its separate urethra. The ureter leading to the left bladder had apparently been chronically compressed at the pelvic brim by the enormous reduplicated colon and there was a hydro ureter and a shrunken, atrophied kidney with a cortical abscess on the left. This left kidney was removed and the two remaining portions of the colon anastomosed. The child has been well ever since. Such complete reduplication of the colon is an extremely rare disease—only 6 or 7 such cases having been reported, several of these in association with genito-urinary tract anomalies as in our case. Duplication of the small bowel is not nearly as uncommon as duplication of the colon whether complete or incomplete. The next patient is a twelve day old infant with a grotesque degree of abdominal distention. He had become progressivsly more constipated and distended from birth and was seen to have a huge abdominal mass and an apparently normal colon and a normal pyelogram. At operation, he was found to have reduplication of the terminal ileum. This, like most reduplications of the small bowel, did not communicate with the alimentary tract, unlike most reduplications of the large bowel which do communicate with the lumen of the normal bowel. Because there was a common wall between the duplication and the ileum, it was necessary to resect a portion of small bowel together with the cyst and to perform an anastomosis. Reduplication of the small bowel makes itself felt usually in a purely mechanical fashion by abdominal distention or by intestinal obstruction. Rarely there may be hæmorrhage associated with reduplication. Reduplications of course, need not be as extreme as in these two cases and may sometimes simply produce modest tumours closely attached to the bowel which they involve. Either the duodenum or terminal ileum in the small intestines, or any portion of the colon, chiefly the distal portion, may be affected.

Hydronephrosis.

The next patient is a fairly happy looking coloured boy of six who seems to be at least eight months pregnant. No history could be elicited except that of progressive, lifelong, abdominal distention without pain, constipation or other symptoms. In this boy, quite incorrectly, reduplication of the intestine was the clinical diagnosis, but when his abdomen was entered through a right transverse incision at the level of the umbilicus, the incision which we prefer for this type of exploration, it was found that he had an enormous cystic, retroperitoneal mass which was not attached to the bowel. As it was being dissected out it became quite clear that it was nothing more nor less than a colossal hydronephrosis which had reduced the kidney to a thin-walled fibrous shell containing clear fliud. The ureter connected with this shell through an orifice which barely admitted a broom straw. It seemed fairly clear that this child had had a lifelong stricture at the uretero-pelvic junction resulting in this tremendous hydronephrosis. He was quite well following resection of the hydronephrotic sac. It is well to consider in advance of operation the possibility of a silent hydronephrosis in children with unilateral abdominal masses. It is just conceivable that in some of these cases it may be possible to perform a plastic operation at the uretero-pelvic junction which might permit preservation of the kidney and restoration of renal function. In the present instance, this was manifestly impossible since the renal cortical tissue had been completely destroyed. In the next case, an infant of 6 months who had been referred because the pediatrician felt a mass under the left costal margin, it might perhaps have been possible to preserve the kidney because the hydronephrosis was not quite so marked. However, in a child of six months, it is extremely doubtful that anything in the way of a plastic procedure would have been feasible on the thread-sized infant ureter. Here again, there was only a pin-point lumen at the uretero-pelvic junction.

Multicystic Kidney.

The next patient is a male infant of three months who was also referred to the hospital because he had a palpable tumour below the left costal margin. We felt the tumour to be movable, apparently cystic, non-tender, and noted that whereas the right kidney filled in the pyelogram, the left kidney did not. We felt that we were dealing with unilateral multicystic kidney and operated upon the baby on that assumption. As the slides show, this child did in fact have a multicystic kidney on the left. The large swelling consisted of a number

of thin-walled cysts containing clear fluid. In one small portion of the gross section, there was a small fragment of recognizable kidney tissue. Microscopically, the cysts were lined by flat cells and in the fibrous tissue between them there was no recognizable renal tissue. There was no structure definetely recognizable as ureter. The other kidney was normal and the child made an uneventful recovery. We were interested, a few weeks later, when one of a pair of premature negro twins born in the hospital became distended, began to vomit, and was found to have a cystic multinodular left upper quadrant mass. We quite readily again made the diagnosis of unilateral multicystic kidney and removed a tumor from the baby when she still had barely reached her proper birthweight. The multicystic tumor, as you see, is almost too large to have come out of the abdomen of so small an infant, and on section there was nothing to be found either grossly or microscopically suggestive of a kidney. There were only the several large, thin-walled cysts without anything suggestive of calyces, pelvis or ureter. At this point, we had recourse to the literature and found to our surprise that the condition which we had so gibly diagnosed on two occasions was, in fact, extremely rare and had been found and reported only three or four times before. This condition must be quite sharply differentiated from congenital polycystic kidney. The latter disease rarely manifests itself in childhood, although in unusual instances the cysts are already so large at birth as even to cause dystocia. In congenital polycystic kidneys. the renal architecture is fairly normal at birth except that many of the glomeruli sit inside small cysts as if they were intracystic papillomata. These little cysts apparently do not communicate with the tubular system and as they gradually dilate, compress the surrounding renal tissue producing a pressure atrophy which leads to progressive destruction of renal tissue, uræmia and finally death. In the cases under present discussion, however, there is no semblance of normal renal tissue and no structure but the large, thin-walled cysts. The symptoms are simply those of an abdominal tumour in that location.

Wilm's Tumour.

If we pass on to the tumours of the kidney we come to the unhappy children who develop embryomata of the kidney or Wilm's tumours. This boy of 2½ years had been followed by his family physician for many months with a large abdominal tumour and abdominal pain and it was only when his distress became grave and he began passing bloody urine that he was referred to our hospital for operation—irradiation therapy having failed him. He had a huge mass in the right upper quadrant. Despite the great size of the mass it was readily removable through a transperitoneal incision. A cut section of the gross specimen shows a tumour growing into the calyces quite obviously explaining the source of the hæmaturia. Parenthetically it may be remarked that in the largest series of cases reported, that of Ladd and Gross, none of the patients with hæmaturia survived. Of greatest interest in the figures presented by Ladd and Gross are those with respect to prognosis. In children under a year of age, a cure rate of something like 50% may be expected, whereas in the entire group it is about 25%. Most of the children who develop a recurrence will do so within 6 months and recurrence will rarely, if ever, occur more than 18 months after operation. As was true in this patient, irradiation can be expected to offer little, delays operation and decreases the likelihood of removal of the tumour before metastases occur. Regardless of the size of the tumour, it may always be considered to be removable if it has not metastasized. Once the tumour has metastasized, preoperative irradiation therapy will obviously not make it any more curable. This particular boy developed abdominal pain and swelling just exactly 6 months after operation and subsequently succumbed. I have not any material here illustrative of the more common neuroblastomata of the adrenal. As you know, these are even commoner than Wilm's tumours but rarely reach great size before they have metastasized beyond hope of redemption. The pattern of metastases is familiar to you—sometimes predominantly to the liver—the so-called "Pepper" syndrome, sometimes predominantly to the bones—particularly those of the skull—the so-called "Hutchinson" syndrome. This is an extremely malignant tumour in which the only hope lies in early discovery of the primary tumour followed by adequate transperitoneal resection.

Lymphosarcoma.

There is perhaps one other malignant tumour of the abdomen in children which deserves notice apart from Hodgkin's disease and other such conditions. This is lymphosarcoma of the intestine as illustrated in this little child from the Dutch West Indies in whom a mass was palpated when the abdomen became protuberant. As the specimen shows, this case is fairly characteristic in that a considerable segment of bowel is heavily involved in the tumour. The wall is infiltrated by the tumour and completely surrounded by it, the lumen compressed almost to the point of disappearance, yet without any specific gastro-intestinal symptoms up to this point. It was, of course, quite feasible to resect the segment of bowel involved but all of the mesenteric lymph nodes were tremendously enlarged and several which were biopsied showed tumour so that it was quite hopeless to attempt total eradication of the neoplasm. Resection of the involved bowel with end to end anastomosis was performed and the child was subsequently given radio-therapy. Lymphosarcoma occasionally attacks very long segments of the terminal ileum—sometimes giving rise to symptoms by virtue of tumour, sometimes by virtue of bleeding from the bowel. Recovery is rare.

Mesenteric Cysts.

Mesenteric cysts are among the benign intestinal tumours of greatest interest within the group characterized by the title of this report. We will dismiss with scant consideration polyps and similar tumours which almost never lead to abdominal distention. Mesenteric cysts are fairly uncommon but we have seen three. These have all been chylous cysts of the mesentery, thin-walled cysts of the small bowel which were filled with a moderately thick yellow fluid. In the first case, a two year old boy had repeated bouts of cramp-like pain of curious character and was finally admitted to the hospital with acute intestinal obstruction which was not diagnosed until he became severely prostrated. At operation, he was found to have a large chylous cyst of the mesentery which had twisted the bowel causing a volvulus which had actually become gangrenous. The cyst was resected together with the attached bowel and he ultimately recovered. The second patient had a few bouts of cramp-like pain suggesting appendicitis and the cyst was discovered when his abdomen was opened. The cyst completely surrounded the bowel and the mesentery and deformed the bowel, distending it tremendously over the surface of the cyst so so that by no stretch of the imagination could it be deemed worthwhile to attempt to dissect the cyst from the bowel. The bowel was removed with the attached cyst and an anastomosis performed with uneventful recovery.

In the third child there was a very clear history of repeated bouts of cramp-like pain which certainly must have been intestinal obstruction and he finally presented himself with a distended abdomen and fluid levels seen in the bowel in the roentgenograms. He was only 4 years old, had never had any operative procedure and it seemed most likely that he had some sort of a tumour causing a recurrent volvulus. We postulated that he might have a chylous cyst of the mesentery with recurrent intestinal obstruction, and as the pictures of the operation show, that is precisely what he did have. Lymphatic cysts as well as chylous cysts do occur and occasionally reach considerable size. It is notable that most of these chylous cysts are so soft and formless that a discrete mass is not palpable within the abdomen.

Bezoar.

While bezoars are frequently large enough to be palpable, and may give very serious symptoms indeed, it is probably not often that they reach a size such as actually to produce an abdominal fullness. However, they are perhaps worthy of a few words in this connection. These pictures were taken at the operation of a 20 month old coloured girl who had been in the habit of pulling out and ingesting her hair. As you see, the black bezoar forms a complete cast of the stomach and you can recognize the cardia, the fundus, the pyloric antrum, and even the duodenal bulb, and finally this long, rope-like strand passing down into her small bowel. The bezoar was removed by gastrotomy. The psychiatrists were consulted as to the best means of preventing further ingestion of the patient's hair and their common sense suggestion was that the

patient's head be shaved smooth. This was actually done on the ward but the very next day the child was found to be sitting up in bed painstakingly and methodically smoothing out her dolly's dress, removing a thread from the woof and a thread from the warp until a neat pile had been accumulated which she then thrust pleasantly into her mouth. Thus far she has not returned with another bezoar. In some sections of the United States, phytobezoars are more common due to the ingestion, in those areas, of quantities of a wild fruit known as persimmons. The stringy fibres of these fruits together with some resinous substance in their pulp may be coagulated by the intestinal juices into a mass which may remain in the stomach, or more commonly in the small intestine, sometimes several such masses in one patient. The treatment of these again is operative.

Neo-Natal Intestinal Obstruction.

We come now to neo-natal intestinal obstruction and I mention this in connection with pot belly only to emphasize the fact that in general one must be considered culpable if one waits for distention before diagnosing intestinal obstruction in the newborn. Vomiting in the neo-natal period is a symptom of most extreme significance and must be given the greatest weight. Everyone is familiar with the fact that newborn children may regurgitate from time to time and spit up a little food or stomach contents. However, this is quite different from vomiting. Particularly if the vomitus contains bile, a search must a once be made for the cause. The simplest diagnostic measure to employ is a flat X-ray film of the abdomen. The use of barium has no place in the diagnosis of neo-natal obstruction and air in the distended portions of the alimentary tract proximal to the obstruction will usually give all the information that it is necessary to have before operation. If the vomitus contains no bile and X-rays show dilatation limited to the stomach and first portion of the duodenum, one may assume that there is an atresia of the first portion of the duodenum. If the vomitus contains bile one must assume that the obstruction is distal to the Ampulla of Vater. The first patient presented was actually jaundiced when he was admitted to the hospital, an ostensible case of biliary atresia. The occurance of jaundice in atresias of the duodenum has been reported before and is presumably due to back pressure on the common duct from the enormous pressure within the duodenum proximal to the obstruction. The stomach and first and second portions of the duodenum are enormously dilated. This patient was found to have a mélange of defects. He had a complete intrinsic obstruction due to atresia of the duodenum in the second portion. At this level also the portal vein passed over anterior to the duodenum instead of behind it. In addition, the pancreas completely surrounded the duodenum as a so-called annular pancreas, and finally he had a malrotation of the colon which was twisted on itself. He was given a duodenojejunostomy around this obstruction, and the malrotation of his colon was corrected with good recovery. The next patient was 20 days old when the films were taken. We see that in this instance there is air in the intestinal tract and pelvis and it is obvious as well that the child could not have lived for 20 days with a complete obstruction. The films show a huge dilatation of the stomach and duodenum apparently as far as the ligament of Treitz. An incomplete obstruction was postulated in this area and we found a partial mucosal diaphragm which was excised and the bowel repaired. The most common sites of atresia are in the duodenum, the duodeno-jejunal region, and in the terminal ileum. In atresias of the ileum and upper jejunum distention never occurs because the bowel can empty itself quite completely although perhaps a dilated stomach may be visible. Unfortunately, in atresias of the ileum distention of the abdomen is all too common and when the diagnosis is finally made it may be impossible to effect a cure because the bowel has been so distended as to lose all tone or has even become gangrenous. For this reason, great alertness must be shown to diagnose these conditions as early as possible. Another type of neo-natal obstruction of the intestine depends upon the non-rotation or malrotation of the colon with failure of fixation of the mesentery of the small bowel or midgut. Two types of intestinal obstruction may result from this anomaly. In the first, the cæcum which is somewhere near the midline in the left upper quadrant is connected by peritoneal bands to the right upper quadrant. The duodenum which passes under these bands is obstructed by them and high intestinal obstruction results. In the second, the failure

of fixation of the midgut permits the small bowel to develop a volvulus which may give some extremely acute symptoms early in the neo-natal period or on the other hand may not give symptoms for weeks or months or may cause only partial obstruction. The treatment obviously is the correction of the volvulus and the division of the bands crossing the duodenum.

Splenomegaly and Splenectomy.

The next patient with the enormous abdomen, huge spleen and liver marked out by the lines on his abdomen, the thick skull, high brow, and saddle nose, is an obvious sufferer from Cooley's Mediterranean anæmia. He may serve as a point of departure for a discussion of splenectomy in childhood. The most brilliant results of splenectomy in childhood are probably achieved in the treatment of the familial hæmolytic jaundice. Marked splenomegaly is uncommon in this disease but removal of the spleen halts the hæmolytic crisis and effects a cure. At least one may promise the parents that, but months or years after operation an occasional patient is seized with acute attacks of right upper quadrant abdominal pain. In this event, one will find that the patient has cholelithiasis and is suffering with biliary colic. It is well known that in sickle cell anæmia, familial hæmolytic jaundice, and other severe hæmolytic anæmias, the incidence of cholelithiasis is far above that in the general population of the same sex and age, and it is always well before performing a splenectomy for familial hæmolytic jaundice to investigate the condition of the gallbladder and perhaps to remove it at the same time of splenectomy if it contains stones and the patient is tolerating the procedure well. The other condition in which splenectomy is most profitably performed is thrombocytopenic purpura. One rarely wishes to perform splenectomy in the first attack of purpura; on the other hand, one should avoid, if possible, being forced to delay the operation until the patient is almost completely exsanguinated and operation has become a choice of desperation. In Cooley's anæmia, splenectomy is certainly not curative but it may perhaps slow the rate of destruction of the red cells and diminish the frequency of required transfusions. In Gaucher's disease, splenomegaly may in the first place be so extreme as to require splenectomy for mechanical relief, and in the second place it occasionally appears that splenectomy has excerised a beneficial effect on the disease itself.

In Banti's disease, abdominal enlargement appears only late when cirrhosis and portal obstruction lead to ascites. In a few instances of splenic vien thrombosis with bleeding from œsophageal varices, splenectomy is indicated Serious consideration should be given to the advisability of a spleno-renal venous anastomosis before splenectomy is undertaken, for this type of shunt is seldom feasible at a subsequent operation.

Finally, of course, to complete the story of splenectomy in childhood, a good many splenectomies are required for trauma to the spleen, with rupture, as in sledding accidents. The occurence of delayed hæmorrhage from the spleen, hours or days after the injury, complicates the diagnostic problem.

Biliary Atresia.

Congenital biliary atresia is manifested by intense and unremitting jaundice although frequently the blood bilirubin may be no more than 7 or 8 mgm. per cent. and the baby may remain in a state of excellent apparent health, vigour, and general nutrition for many months except for the deep jaundice, white stools and saffron urine. In a very small group of these patients, one can find some portion of the extrahepatic biliary apparatus containing bile so that it is possible to anastomose it to the duodenum relieving obstruction. However, in by far the greater number of patients nothing can be found of the extrahepatic biliary duct system but perhaps a tiny, shrunken gallbladder with no connection with either the liver of the duodenum. In such cases, it has been the invariable experience that the intrahepatic biliary architecture is also disorganized so that on section of the liver one cannot find any dilated ducts which could conceivably be employed for an anastomosis with the intestines.

DEFECT OF THE ABDOMINAL WALL.

A rare cause of abdominal distention arises not from an abnormality of the abdominal contents but from a defect in the abdominal wall, namely, a complete failure of development of the abdominal musculature. This is a curious condition of which 20 odd cases have been collected by Housden in the Archives of Diseases of Childhood in 1934. The condition is almost inavitably fatal, usually as a result of the associated mega-ureter, hydronephrosis and enlargement of the bladder. The relation of the urinary tract anomalies to the absence of abdominal musculature is not clear. Autopsies disclose the abdominal musculature to be represented by a few shreds of connective tissue and occasional thinned out muscle fibres. SucG infants if they survive, learn to sit up quite late. Nephrostomy may postpone death, but no suggestions likely to be permanently corrective are recoredd.

Correspondence

Residents' Play

SIR,—Please note that the dates of the Residents' Play have been altered to Tuesday, February 21st to Saturday, February 25th, inclusive.
Our printers are inundated with extra work and I regret that the despatch of tickets will be delayed. So please excuse us if they are late in arriving.

Yours, etc.,

T. R. L. FINNEGAN,
President of the Residents.

The College,
Guy's Hospital, S.E.1.

Tickets for the Rugby International

SIR,—In reply to Dr. Swann's letter in the last issue of the *Gazette*, I should like to point out that the allocation of International tickets from the Rugby Football Union is made neither to the Students' Union nor to the staff of the Hospital. It is made to the Rugby Football Club itself, and the issue is primarily for the playing-members of the Club.

In actual fact we, in common with most other Rugger Clubs, do arrange that a few tickets be given to Honorary Members, and in our case this includes a few members of the Senior Staff.

Before the war the allocation of tickets to each Club was much more generous, and usually a number were left over after distribution had been made to the playing-members. These were given either by ballot or on the "first come, first served" principle, to applicants not directly connected with the Club.

After the war ended many new Rugger Clubs were formed, and so the applications for International tickets increased enormously. We have therefore had our allocation cut, and in common with all other Clubs, we find that there are just enough tickets to go round the playing-members and the Honoraries, and very few, if any, are left to be distributed to outside applicants.

This season we were given 65 tickets for the Welsh Match, and 92 for the Irish Match; having applied for 180 tickets for each match. The distribution of the Welsh tickets was as follows:—

1. Playing-members 20 tickets
2. Honorary-members (Senior Staff) 20 tickets
3. Members of the Senior and Junior Staffs and other applicants from the Hospital 17 tickets
4. Honorary-members (Officers of the Club) 6 tickets
5. Assistant Librarian (who does a lot of work for the Club) 2 tickets

From this you will see that only ten playing-members obtained tickets.

The distribution of tickets for the Irish Match was affected in the following manner:—

1. All playing-members of the Rugger Club who applied for tickets were given 2 each, 46 tickets

2. The Honorary-members were given 2 each, 24 tickets
3. The Officers of the Club were given 6 tickets

There were 16 tickets left over and a ballot was conducted. Ten names were drawn out of a hat ; the first 6 were given 2 tickets each, and the remaining 4, 1 ticket each. This last distribution, I think, was perfectly fair.

I should like to point out to Dr. Swann that a normal Rugger Club, not part of an Institution, receives applications from only two types of people :— those who are Honorary-members, and the actual playing-members themselves. Tickets are restricted to members and generally a ballot is held, because the applications of playing-members alone far exceeds the supply. No outsiders are considered, and tickets are only given to ex-playing-members, if there are any left over. In the Hospital we get applications from large numbers of people who are in no way connected with Rugger, and who never support the Club. They have no right to expect tickets, and only in the event of our having more than we require, will a distribution be made to them by ballot.

In conclusion I should like to apologise to members of the Staff for failing to arrange the display of a notice in the Staff Common-Room advertising the date of application for International tickets.

Yours, etc.,
W. P. N. MOORE,
(*Hon. Sec. Guy's R.F.C.*)

Bromide Intoxication

SIR,—Any opinion expressed by Dr. Barber commands respect. I well remember the paper on bromide intoxication to which he refers, and always have it at the back of my mind when I prescribe bromides.

Although the risk of bromide intoxication does exist, usually as a form of idiosyncracy, I feel that the paper to which Dr. Barber refers was perhaps inclined to exaggerate it—as a matter of practical experience.

It falls to my lot to see many cases of duodenal ulcer and I almost always find potassium bromide indicated—as some form of sedative usually is in the duodenal diathesis—and I would assure Dr. Barber that with a dose of 10 grain t.d.s. I have never met with a single case of bromide intoxication nor even of minor bromism. In my experience, when a drug is indicated it is usually tolerated. At the same time I would not give potassium bromide over long periods, but would ring the changes with sodium phenobarbitone.

Yours, etc.,

Brookwood, Surrey. H. M. STANLEY TURNER.

"Practical Anatomy"

SIR,—I have noticed that in your journal a reviewer, in referring to my "Practical Anatomy," expresses the opinion that more details of the portal venous circulation should be given. I should be extremely grateful if, through you, he could indicate what details should be added, bearing in mind of course, that the book is intended simply as a *guide to dissection* and therefore to be used in addition to a text-book. I should be grateful for suggestions on this particular point from your reviewer, so that I can make up for deficiences in the next edition of the book.

Yours, etc.,
Professor W. E. LE GROS CLARK, F.R.S.

Department of Human Anatomy,
University Museum, Oxford.

Proctalgia Fugax

SIR,—Proctalgia Fugax is usually immediately relieved by inserting the greased nozzle of a Higginson's syringe into the anal canal and compressing the rubber bulb three of four times to fill the lower part of the rectum with air.

Yours, etc.,

38 Queen Anne Street, W. E. TANNER.
Cavendish Square, W.1.

Proctalgia Fugax

SIR,—It was with great relief that upon picking up the *Gazette* of 28th January, 1950, I discovered a name had been given to a complaint I have experienced most of my life. I read with real enjoyment this learned description—Pathology—Aetiology—Diagnosis and treatment, and wonderful title given to my " Wind in the lower Bowel."

I, and memebers of my family have experienced this distressing complaint for more years than I care to remember. The symptoms always being the same, pain varying in its intensity and duration. My mother, who also suffered, told us it was caused by wind in the lower bowel.

Once I was examined by one of our eminent Guy's Physicians for him to find out what was wrong with **himself.** He failed to find any reason for his pains ! ! I then told him of the diagnosis we had been given. It was some years later I met this Doctor up at Guy's, and he said he had come to the conclusion that that diagnosis was a correct one. I, personally, am confident of it. When relief comes, it is almost invariably accompanied by release of pressure following a feeling of gentle passage of wind **in** the bowel.

I find that after a dose of salts, the reaction is always a mild constipation, and I am pretty sure to be visited by my old enemy. I find that massage helps to disturb the wind, and relieves the condition.

Probably it is more frequent at night, but a day-time attack is not at all infrequent.

I apologise for intruding on a subject which is not in my sphere, but perhaps this further family history may be of interest to those whose concern it is. In any case, it is a nice important feeling to know that after all these years I am a sufferer of Proctalgia Fugax.

Yours, etc.,

Wm. O. COOKSEY.

Kingsbridge,
Liverpool Terrace, Worthing.

SIR,—Having suffered for many years, until recently, from this painful complaint (Proctalgia Fugax) my experiences may be of value. My first attack occured in boyhood and was severe enough to cause unconciousness. There was no further attack until about the third decade had been reached. The seizures have occured at varying intervals, usually at night, sometimes at meals, once when giving an anasthetic. As the pain produces a feeling of faintness it was my custom to be on the floor when the spasm gradually passed. Later, I found quicker relief by lying on the floor with the legs and buttocks raised and resting against the bed or table or chair. Drugs and digital dilatation have not been tried. The simple remedy described has been adequate. My father suffered from this complaint

Yours, etc.,

SEPTUAGENARIAN.

Annual Open Boxing Tournament

SIR,—Through your columns the Hospital Tournament Committee would like to appeal to students. The Annual Open Boxing Tournament this year will be taking place on Monday, 20th February, at Seymour Hall, and our opponents will be the Metropolitan Police. Students are asked to support this popular entertainment both by attending themselves and by selling tickets.

In order to fill Seymour Hall over thirteen hundred tickets will have to be sold and any support which is given will be greatly appreciated. Tickets may be obtained from the Counting House, Guy's Hospital and all the proceeds are in aid of the Funds of the Pavy Gymnasium.

Yours, etc.,

ALAN POLLOCK,
Tournament Secretary.

Clubs' Union Council

A quarterly meeting of the Clubs' Union Council was held on Friday, 20th January, 1950, with Mr. F. R. Kilpatrick in the chair.

Under the heading MATTERS ARISING FROM THE MINUTES, the Honorary Secretary reported that outstanding financial questions and other formalities having been settled, work was about to commence on the demolition of the air raid shelters at Honor Park.

Regarding the Reference Library in the Students' Club, Dr. Price explained that the new facilities in the Club Room were apparently widely appreciated and that expenditure, up to the total figure of £150, allowed by the Council, was being incurred, this involving the purchase of a book-case at the estimated cost of £70. In addition, aletter had been received, stating that a grant of £100 might be made available to the Students' Club, specifically for the purchase of books to reinstate the old Reference Library.

Full discussion then ensued on the proposal made by Mr. P. A. Zorab for an appeal to be launched for £2,000 to £3,000 to meet the cost of renovation urgently needed at the Honor Oak Park. These, he explained, included complete overhaul of the Club House, with particular reference to the washing facilities and structial modifications to provide a hall large enough for dancing, improvements to the turf on the Hockey pitches and tennis courts and, if practicable, the construction of a swimming bath.

On the desirability for these improvements there was full agreement.

The final resolution adopted, was to the effect that an appeal for funds would be ill-timed at the present, but that such of these proposals as were feasible should be acted upon out of the money already available and by exercise of internal economies.

Meanwhile work is going ahead on such of these items already going under the heading of war damage.

Finally the decision was taken to implement forthwith an earlier resolution of the Council for the reconstruction of the front wall at Honor Oak Park and the hanging of new wrought iron gates at the main entrance. The cost of these gates would be about £225 but the Council thought every effort should be made to find the money for their purchase.

'The Office'

The Medical School Office must seem to anyone unaquainted with it, a peculiar subject on which to write. Peculiar is certainly the word, for it is more " different " than any other office we have ever come across. We have seen the inside of accountants offices and insurance offices and brokers offices and Regimental offices. We have visited offices hiding Mayors and Managers and Minions and Merchants. Once we had one of our own—(it was very small). But here is an office entirely unlike all others. It has no office boy, nor a teapot. No letter press for squashing papers. Nor, indeed, anyone whom you could call an official. There is a counter but no bell on it. On one side of the counter there are usually students—students making every sort of enquiry. Some planning their future careers, others their holidays—others enquiring about their lost gloves, their next exam, about tickets for the theatre, the addresses of their friends, for appointments, for locums or just for a job. On the other side of the counter there are people. We suppose they have official titles. We certainly never heard them used. Its just " Mr. Winston " or " Mr. Cook " or " Mr. Goodliffe " or " Mr. Wallis " or " Miss So and So "– which is how it should be. We like to deal with people, not officials.

It is a long time since the Dean (not this one) used to come in once or twice a month, top-hatted and frock-coated or since the intending student named the day it would be most convenient for him to commence his studies. Nowadays " bumph " (much of it deserves a more polite name) descends in increasing quantities, the form filling and the routine work multiplies. Yet somehow in spite of it the Medical School Office, where others have failed, succeeds in remaining human. You don't believe us ? Very well then, take a look at the beautiful copy-book handwriting on clinical lecture notices. Any other office would have typed or printed them ; not, bless them, our own. There, they have a secret. What is it ? I'll tell you. Someone, or so I believe, still has a quill pen.

Guy's Hospital Dental School

ANNUAL CLINICAL MEETING

PROGRAMME

4TH MARCH, 1950

MORNING SESSION (10 *a.m. to* 12 *noon*)

THEATRES

10 a.m.—Removal of Impacted lower Third Molar ..	Mr. K. Hooper
Anæsthetist	Dr. W. S. McConnell
11.30 a.m.—Repair of Primary Hare-lip	Mr. N. L. Eckhoff
Anæsthetist	Dr. W. S. McConnell

(This operation will be on Television)

OUT-PATIENT DEPARTMENT (Local Anaesthetic Extraction Room)

The Technique of immediate Localisation plates in the Surgery	Mr. D. F. L. Cook Mr. B. G. E. Donner

DENTAL DEPARTMENT

Ground Floor

X-Ray Department

Some interesting Radiographs	Dr. F. L. Ingram

Department of Preventive Dentristry

Bacteriology	Mr. A. Bulleid and Mr. C. W. T. Shuttleworth
Methods of Caries control	Mr. R. D. Emslie
Gingivectomy	Mr. A. A. W. Fooks
Parodontal cases	Mr. B. W. Pett
Recurring Aphthæ	
Colour slides projected, with case histories	

First Floor

Denture Room and Prosthetics Laboratory

Fournet-Tuller Technique for Full Lower Impressions	Mr. R. J. Wheatley
Intra-Oral Records	Mr. M. Malleson
Tongue Space	Mr. A. Rand
Exhibit of Students' Work	

Dental Research Laboratory

Measurement of inter-Dental forces with an electrical strain-gauge	Mr. D. J. Anderson
Methods used in teaching Special Dental Anatomy and Histology	Mr. P. C. Grummitt
The use of colour transparancies in the teaching of Histology	Mr. J. F. Dudley, of the Dental Research Laboratory

Department of Dental Medicine

Pathological specimens and sections	Professor M. A. Rushton
Organic Constituents of Dentine	Mr. M. V. Stack

Dental Photographic Department

Exhibition of Clinical Photographs	Mr. A. D. Robinson

Second Floor

Conservation Room

Operative Dental Surgery	Professor W. E. Herbert
Jacket Crown Preparation	Mr. W. A. Vale
Three-quarter Crown Preparations	Mr. C. I. Hagger
Bridgework	Mr. J. G. Hancock

Demonstration Room

Minor Oral Surgery	Mr. R. O. Holland

Clinical Room

An Average Out-Patient Clinic	Mr. G. B. Pritchard

Children's Department

The scope of the Monobloc	Mr. R. E. Rix
Demonstration by the Upper Respiratory Research Unit "Diagnostic Methods"	Mr. E. Gwynne Evans, assisted by Mr. W. J. Tulley
Some cases of Late Treatment	Mr. Howell Richards
Orthodontic Cases under Treatment	Mr. R. E. Rix Mr. Howell Richards Mr. W. J. Tulley The Orthodontic Assistants

AFTERNOON SESSION (2 *p.m.*—4 *p.m.*)

THEATRES

2 p.m.—Removal of a buried Third Molar Tooth .. Mr. H. H. Kenshole
Anæsthetist .. .. Dr. P. J. Helliwell

3.15 p.m.—Restoration of Chin Prominence by prefabricated Polythene Mold (by cervical approach) Mr. Patrick Clarkson
Anæsthetist .. .. Dr. D. M. Carnegie

(This operation will be on Television)

OUT-PATIENT DEPARTMENT

Methods of reducing after-pain in Minor Oral Surgery Mr. A. R. Thompson

PRE-CLINICAL DEPARTMENT (Second Floor, Old Pathology Block, behind Dental School)

Dental Splints .. .. Mr. G. Loader
Visual Aids to Teaching .. .. Mr. A. D. Robinson
Hollenback Vacuum Investing Technique .. .. Mr. T. J. Hancock
Exhibit of Students' Work

DENTAL DEPARTMENT

Ground Floor

X-Ray Department

Some interesting Radiographs .. .. Dr. F. L. Ingram

Department of Preventive Dentistry

Bacteriology .. .. Mr. A. Bulleid and Mr. C. W. T. Shuttleworth

Pressure Packing .. .. Mr. R. D. Emslie
Methods of Caries Control .. .. Mr. A. A. W. Fooks
Paradontal Cases .. .. Mr. B. W. Pett
Recurring Aphthæ .. ..
Colour slides projected, with case histories .. ..

First Floor

Denture Room and Prosthetic Laboratory

Cleft Palate Cases .. .. Mr. R. D. Gain
Elimination of Undercuts for Acrylic Dentures .. .. Mr. G. F. Dyer
Plaster Impressions with Stock Trays .. .. .. Mr. D. Stileman
Exhibit of Students' Work

Dental Research Laboratory

Measurements of inter-dental forces with an electrical Strain-gauge .. .. Mr. D. J. Anderson
Methods used in teaching Special Dental Anatomy and Histology .. .. Mr. P. C. Grummitt
The use of colour transparancies in the teaching of Histology .. .. Mr. J. F. Dudley, of the Dental Research Laboratory

Department of Dental Medicine

Pathological specimens and sections .. .. .. Professor M. A. Rushton
Organic Constituents of Dentine .. .. .. Mr. M. V. Stack

Dental Photographic Department

Exhibition of Clinical Photographs .. .. .. Mr. A. D. Robinson

Second Floor

Conservation Room

Jacket Crown Preparations .. .. Mr. W. A. Vale
Preparation for lingual dovetail restorations .. .. Mr. H. S. M. Crabb
Silicate cements .. .. Mr. J. B. Kirkwood
Indirect inlays .. .. Mr. N. A. Power
Local Anaæsthesia for Convervative Dentistry .. .. Mr. P. J. Hill
Manipulation of Amalgam .. .. Mr. R. J. Hart

Clinical Room

Minor Oral Surgery .. .. Mr. J. W. Mansie

Children's Department

Cases demonstrating simple Orthodontic Treatment (2—3 p.m.) .. .. Mr. K. E. Pringle
Technique and Pliers for making some useful Orthodontic Appliances (3—4 p.m.) .. .. Mr. M. A. Kettle

Orthodontic Cases under Treatment .. .. .. Mr. K. E. Pringle, Mr. M. A. Kettle, Mr. W. J. Tulley, The Orthodontic Assistants

---

Tea will be served on the First Floor of the Dental Department at 3.45 p.m.

Reviews

Applied Medicine. By G. E. BEAUMONT, M.A. D.M., F.R.C.P., D.P.H. Churchill. *Price 30s.*

This book has the merit of not attempting to be comprehensive. It is a collection of cases made by the author and presented either in a straightforward descriptive fashion, or as short notes, or in the form of question and answers given by the bedside. The last method seems to be the least satisfactory. The cases are, however, mostly very well chosen and the whole book makes interesting reading.

Z.

Guy's Diary

ACADEMIC

February		
		Exhibition. Surgical Department. "Pott's Disease."
13th.	1.00.	Dr. McConnell. Clinical Lecture. "Di-Vinyl Ether."
14th.	12.00.	Professor W. E. Herbert. Dental Clinical Lecture. "Traumatic Injuries to the Teeth." Dental Lecture Theatre.
	1.00.	Professor Spurrell. Clinical Lecture. "Some Tests of Functional Capacity."
16th.	1.00.	Mr. Glover. Clinical Lecture.
	4.30.	X-Ray Demonstration. Gordon Museum.
17th.	1.00.	Dr. Mann. Clinical Lecture. "Hypertension."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
21st.	12.00.	Dr. McArdle. Neurological Demonstration. Preclinical Classroom.
	5.15.	Mr. P. J. Holloway. Dental Clinical Lecture. "His Dressers are Requested to Attend." Dental Lecture Theatre.
23rd.	4.30.	X-Ray Demonstration. Gordon Museum.
24th.	2.15.	Medical Department. Combined Round. Preclinical Classroom.
25th.	10.00.	Surgical Clinico-Pathological Meeting. Anatomy Theatre.

SPORT

February	
15th.	Association Football XI *v.* St. Thomas's Hospital. 2nd XI (Away)
	Association Football Representative Match. University Hospital *v.* Southern Olympian League.
18th.	Rugby XV *v.* Aberavon. (Aberavon).
	Association Football 1st XI *v.* Cuaco. (H.O.P.).
	Hockey 1st XI *v.* United Services, Portsmouth. (Away).
	Hockey 2nd XI *v.* United Services, Portsmouth. (H.O.P.).
	Hockey 3rd XI *v.* Oxted. (Away).
20th.	Annual Open Boxing Tournament. Seymour Hall, 7.15 p.m.
22nd.	Association Football XI *v.* Bristol University 1st and 2nd XI's. (Away).
23rd.	Association Football Representative Match. Cambridge University. (Away).
25th.	Rugby XV *v.* London Irish. (Rectory Field).
	Association Football 1st XI *v.* Cuaco. (Away).
	Association Football 2nd XI *v.* Old Latymerians. (Away).
	Hockey 1st XI *v.* Sevenoaks. (H.O.P.).
	Hockey 2nd XI *v.* Sevenoaks. (Away).
	Hockey 3rd XI *v.* Sevenoaks. (Away).

Sport and Hospital Information, etc.

RUGBY FOOTBALL

Guy's 1st *v.* Coventry

At Coventry. Lost 15—3.
4th February, 1950.

A crowd of about four thousand people saw Coventry beat the Hospital XV by 15 points to 3 in an exciting hard fought game.

Our opponents had four Internationals playing for them, including the present English Captain, Ivor Preece, but, in spite of their superiority on paper, this was not evident on the field.

Guy's lost the toss, but were given the kick. The forwards followed up hard underneath, and got within ten yards of the Coventry line only bad luck preventing a score. In the beginning of the first half it looked as if the Hospital would manage to hold their own, but in the last few minutes Coventry touched down for a rather unspectacular try between the posts. This was converted and we were losing by 5 points to nil when the whistle blew.

The score could have been 5 points each, for an opening made by F. Le Clus nearly resulted in a try when he broke away and, after drawing the full-back, passed the ball to P. Rademan, who had an open run in front of him. Unfortunately the referee decided that the pass was forward, and so a scrummage was awarded.

Several occasions the Guy's backs ran nearly the whole length of the field forcing their opponents on to the defensive, but, although the play was exciting, their efforts were unrewarded.

In the beginning of the second half Coventry scored again and D. Le Clus kicked a penalty goal for the Hospital. Both sides were going all out and, as Coventry were getting the ball much more frequently in the set-scrums than we were, Ivor Preece had the opportunity of trying every trick he knew to create a breach in the Guy's defence. Nearly every time he got the ball he was tackled in possession by our wing-forwards. Great credit must be given to G. Bellis and P. Rademan for the way in

which they ruined almost every Coventry attacking movement by crash-tackling Preece. Bellis in particular did some wonderful work in the loose, and it was a treat to see him tackle Preece from every angle, even catching him up from behind, which is in itself no mean feat.

Special attention must also be made of the marking and tackling of our three-quarters, and in particular of K. Heber and B. M. Gray, who saved several certain tries by hurling their opposing wings into touch a few yards from the line.

K. Heber also ran half the length of the field after F. Le Clus had broken away and had passed out to him, but he was pulled down a yard from the line after a very fine run.

Before no-side Coventry scored another try which was converted, and so redeemed themselves from the defeat which they had suffered earlier in the season at Honor Oak Park.

W.P.N.M.

BOXING

Inter Club Competition against the Royal Military Academy, Sandhurst.

Result. Guy's won by 5 bouts to 4. A full account of this competition will appear in the next edition of *Pulse*.

HOCKEY

Guy's *v.* Westminster Hospital

1st ROUND INTER-HOSPITALS HOCKEY CUP

At H.O.P. Won 6—1
25th January, 1950.

Nothing is certain in Cup Matches but with our vast student body, compared with Westminster, Guy's is expected to produce the better team, and win. Both expectations were fulfilled, but if we are to keep the Cup we have to contend with the larger Hospitals. If we may borrow some of Westminster's keenness and avoid some of this games errors, to mention a few: overcrowding of the forwards, haphazard passing of the halves and slow clearing by the backs, then, with luck, we'll keep the Cup.

Other Results

Guy's *v.* Birmingham
At H.O.P. Won 3—2
11th January, 1950.

Guy's I *v.* Hendon I
At H.O.P. Won 4—1
14th January, 1950

Guy's II *v.* Hendon II
Away. Draw 1—1
14th January, 1950

Guy's III *v.* Hendon III
Away. Lost 1—6
14th January, 1950

Guy's I *v.* Woolwich Poly. I
At H.O.P. Won 3—2
21st January, 1950

Guy's II *v.* Woolwich Poly. II
Away. Lost 2—3.
21st January, 1950

Guy's III *v.* Midland Bank
Away. Won 10—4
21st January, 1950

HOCKEY CLUB DANCE

The Annual Dance of the Hockey Club will take place at Bush House, on Wednesday February 22nd, 7.30 – 11.30 p.m. All past and present members of the Hospital are cordially invited. Double tickets: £1 including a Buffe supper, are obtainable from the Hon. Sec.

SAILING CLUB

The Annual General Meeting of the Guy's Hospital Sailing Club, will be held on Wednesday, February 15th, at 1 p.m. in the Physiology Theatre.

Agenda 1. Election of Flag Officers for 1950
2. Election of Officers for 1950
3. Any other business

J. BRADBEER,
Hon. Sec.

SOUTHERN AMATEUR LEAGUE

Guy's *v.* West Wickham

Away. Drew 3—3.
4th February, 1950.

Guy's had met and defeated West Wickham earlier in the season, and were as keen to perform the double as were their opponents to avenge that defeat. As can be seen neither were successful.

On winning the toss Guy's elected to take advantage of the pronounced slope of the pitch. An unsettled side found the gradient of little use, and the first half was mostly West Wickham, who had netted the ball three times without reply by half-time.

A defensive error put West Wickham in the lead. Mathews attempting to clear the ball away from the foot of an attacking forward, banged the ball into the bottom left corner of the goal, a shot that many forwards would be proud to have made. This was rapidly followed by a second goal. The Guy's defence failed to clear from a corner, the result of the hectic scramble which followed was a goal.

Continually attacking West Wickham forced Guy's to concede yet a further corner. The ensuing kick, a lofted inswinger, looked to be safely held by Fearn, unfortunately it was not, and much to Lipington's suprise and amazement be found himself holding the ball very safely in both hands. A goal resulted from the spot kick.

The Guy's attack had not been completely overcome, and both Leckie and Newton were unlucky to see good shots safely held. The second half was a different story however. Although not complete masters of the game, Guy's scored the three goals necessary for the drawn result. Burns at left wing initiated the visitors first goal, a long sweeping ground pass was quickly snapped up by Sturdy whose shot gave the home custodian little chance.

West Wickham replied with some sharp thrusts down the centre of the field, testing Fearn on several occasions, but the Guy's keeper seemed to have regained his old confidence and did not appear unduly worried. Thus it was not long before the Guy's forwards, backed up by a defence now steady, found the net a second time, and this time the honours went to Leckie with a hard rising shot into the side net.

The result was to remain in the balance until what was to be virtually the last kick of the game. With but a minute or so to go Matthews collected the ball at the half-way line, dribbled to within thirty yards of the West Wickham goal, and his shot caught their complete defence on the wrong foot. A stirling effort which more than overshadowed that initial mistake.

Also outstanding were Allen and Willcocks in defence, and Prince at inside forward.

Team: A. Fearn; D. Matthews, D. Lipington; C. Willcocks, D. Allan, A. Swift; C. Leckie, E. Sturdy, E. Newton, A. Prince, P. Burns.

SOUTHERN AMATEUR LEAGUE (RESERVE DIVISION)

Guy's 2nd XI *v.*
Old Westminster Citizens

At H.O.P. Lost 2—1.
4th February, 1950.

ASSOCIATION FOOTBALL

Guy's Hospital 1st XI *v.*
Old Lyonians 1st XI

At H.O.P. Lost 1—3.
28th January, 1950.

Guy's having lost the toss opened the play against a fresh wind, and this coupled with the bone-hard ground, made ball control very difficult. The Hospital side took rather a long time to realise that to progress under these conditions, the first essential was to keep the ball on the ground. The first dangerous move was instigated by Leckie but unfortunately Sturdy's finishing shot was directed at the goalkeeper, who helped it over the bar.

The first score however was made by the Old Lyonians, when, in a goal-mouth scramble three Guy's defenders hesitated around the ball, each leaving it hopefully but unwisely for the other to clear; an opponent placed it unerringly in the corner of the container.

Half-time came with no further score and with the wind at their backs, it looked as though the Guy's team would quickly wipe out the deficit. However this was not to be and Mackintosh, the cleverest player on the field, scored two goals for the visitors. The first through a Guy's player being robbed near the penalty box when he should have cleared upfield, and the second through a missed tackle on Mackintosh when there was no other defender to follow up the missed tackle.

Facing a 3—0 defeat the Guy's team, following the example of that tireless worker Swift, started to play hard football. The visitors' cross-bar was rattled twice, first by Sturdy and then by Swift, and then their endeavours were rewarded when Bishop connected a cross from the right wing. The pressure was kept up until the end and watching from the touch-line one realised how different the score would have been if Guy's had played really hard from the start.

Until the Hospital side wake up to this fact, they will continue their present dissapointing series of defeats. The potentialities for an excellent team are there, but until there is harder tackling, especially in defence, and more steadiness in front of the goal, victory will elude them. Swift's example of 90 minute play was a tonic that unfortunatley was not acted upon by many members of the side.

Team: W. Garland; D. Lipington, J. Wylie; R. Willcocks, D. Allen A. Swift; B. Cornhill, C. Leckie, M. Bishop, A. Prince, E. Sturdy.

Guy's Hospital 2nd XI *v.*
Old Lyonians 2nd XI

Away. Draw 2—2.
28th January, 1950.

Guy's Hospital 1st XI *v.*
Southampton University 1st XI

Away. Draw 4—4.
1st February, 1950.

Guy's travelled to Southampton for their annual fixture with the University on the worst day of the year as regards weather. Fortunately Lipington won the toss and elected to play with the wind and rain and to defend the shallow end.

Guy's were quickly into their stride and Sturdy scored an excellent goal. However, the University quickly equalised when a defender headed into his own goal, leaving Fearn both helpless and speechless.

Cornhill however restored the initiative to Guy's by chasing a long pass from Newton and squaring the ball from near the base line past the goalkeeper into the net. Guy's were now having the best of the play and Sturdy increased the lead. Just before half-time Cornhill anticipated a corner from the left wing and rocketed the ball into the net, a really excellent goal.

From a breakaway just before half-time Southampton scored off the upright. That made it 4—2, but with the turn round the wind had increased to gale force and the rain to a torrential downpour.

It was obvious that Guy's would have to defend for dear life and by clever tackling kept the lively University forwards out. Then a free kick from near the penalty box gave the home side a goal and just on time Southampton's outside left scored to equalise the result; he appeared to be off-side but the referee thought otherwise and as his decision is final time was called with the score 4—4.

The Hospital side deserves credit for playing such a hard game under atrocious conditions It was mentioned "sotto-voce" by certain members of the side that their wives would refuse to wash their kit. Subsequent enquiries proved this assumption to be correct.

Cornhill played the best game seen on the right wing this season and Lipington, Prince, Wylie and Newton deserve special mention, though all enhanced themselves.

Team: A. Fearn; D. Lipington, J. Wylie; P. Southgate, A. Prince, B. Cornhill; R. Willcocks, E. Newton, E. Sturdy, P. Burns.

PASS LIST

UNIVERSITY OF LONDON

M.D. Branch I (Medicine)
December, 1949.

R. A. Craig — I. McD. G. Stewart
D. Davies — J. C. P. Weber

Branch II (Pathology).

W. E. D. Evans — *J. A. Nissim

* Awarded University Medal.

SPECIAL FIRST EXAMINATION FOR MEDICAL DEGREES.

(For Internal Students.)
December, 1949.

S. F. Evans — T. W. Nicholson
K. A. Hillard — D. L. Oldfield
D. M. Lipington — G. G. Temple
R. J. R. Moffat

The following External Candidates have completed the First Medical Examination:

G. Gover — W. R. Thomas
A. G. Malleson

The following Higher School Candidate has qualified for exemption from the First Medical Examination:

M. A. Burnes

Examination for the Academic Postgraduate Certiffcate in Public Health.
December, 1949.
P. R. Cooper.

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

D.R.C.O.G.

E. C. Davies.

UNIVERSITY OF LONDON

Examiners.

The following have been appointed Examiners for Medical Degrees in 1950 :

Forensic Medicine.

Dr. F. E. Camps, with Dr. J. H. Ryffel to act in an emergency.

Medicine.

Staff Examiner : Dr. E. R. Boland

Associate Examiner.

Dr. W. H. Mann.

Obstetrics and Gynaecology.

Staff Examiner : Mr. F. Cook.

Associate Examiner.

Dr. E. D. Y. Grasby.

Pathology.

Staff Examiner : Prof. G. Payling Wright.

Surgery.

Staff Examiner : Mr. H. J. B. Atkins.

CONJOINT BOARD

M.R.C.S., L.R.C.P.

FINAL EXAMINATION.

January, 1950

PATHOLOGY.

J. G. Armstrong	E. T. J. Jones
B. H. Bass	*J. C. Lindsay
D. G. Bluett	A. R. Phillips
A. G. Blyth	J. H. Ratcliffe
P. J. Cook	P. S. B. Russell
*B. Hartley	F. B. Sartory
H. G. Hexter	P. Van der Merwe
E. M. Hume	P. J. Wardill

MEDICINE.

J. G. Armstrong	M. J. R. Mackrill
B. H. Bass	R. C. Nauth-Misir
D. G. Bluett	E. N. Plomer
P. J. Cook	J. K. Price
N. S. Galbraith	*K. F. Robinson
*B. Hartley	I. Rocker
G. L. Jones	M. G. Thompson
*J. F. Le Clus	C. B. Vaughan
D. Lennie	*W. H. Watson
M. Lewis	*R. H. R. White
*J. C. Lindsay	

SURGERY

H. M. Baird	E. T. J. Jones
*D. Barker	*J. F. Le Clus
A. G. Blyth	M. Lewis
A. E. R. Buckle	*M. Mason
J. C. Camac	R. J. Powell
*D. W. A. Drew	*N. A. Power
*C. J. Frederick	A. M. Reader
*R. Goulding	P. W. Ruggles
T. S. Hart	P. R. Sowerby
J. W. Hughes	*W. H. Watson

MIDWIFERY

J. G. Armstrong	K. G. P. Mackenzie
D. M. Devane	G. F. M. Pierce
A. C. de B. Eksteen	E. N. Plomer
N. Gee	N. L. Rowe
*B. Hartley	H. Schapira
G. C. A. Holden	J. A. J. Smith
H. C. Killey	

* Have completed the examination.

D.M.R.-D.

J. V. Kent

D.L.O.

J. D. Trethowan

D.P.M.

H. F. Osmond

ROYAL COLLEGE OF PHYSICIANS

January, 1950.

M.R.C.P.

P. A. I. Gorer	G. R. W. N. Luntz
W. P. Gurassa	D. C. Turk
R. C. Hallam	

CONGRESS ON GASTROENTEROLOGY

Dr. A. H. Douthwaite will speak at the second European Congress of the National Association of Gastroenterology to be held in Madrid from May 4 to 7.

UNIVERSITY OF LONDON

Dr. Keith Simpson will deliver a lecture on "Murder" at King's College of Household and Science, 61 Campden Hill Road, W., on February 23rd, at 5.30 p.m.

ORDER OF ST. JOHN

At an investiture at St, Bartholomews' Hospital on January 20th, the following received insignia of the order :—

Officers : Dr. J. M. MacManus, Mr. F. W. Law.

CHANGES OF ADDRESS

A. A. W. Fooks, L.D.S., R.C.S., from 72 to 88 Harley Street, W.1.

C. R. Neve, M.B.B.S., 66 Alleyn Road, West Dulwich, S.E.21. Tel.: Gipsy Hill 1403.

APPOINTMENTS

Applications are invited for the post of **Resident Anaesthetist** (B.2.); duties to commence on March 14th, 1950. Applicants must have held twelve months' House Appointments. Salary at the rate of £450 per annum, less £100 for board and lodging. The post will be tenable for six months in the first instance. Applications should be lodged with the Superintendent not later than February 25th.

THE INAUGURAL CARBUTT MEMORIAL LECTURE

Tuesday, 28th March, 1950.

Will be given by Sir James Learmonth, K.C.V.O., C.B.E., F.R.S., at 5 p.m. in the Physiology Theatre. The tittle is—"The Pathological Physiology of Gangrene of the Extremities."

BIRTHS

CAMPBELL.—On 28th January, 1950, at Guy's Hospital, to Margaret (nee Hepburn) S.R.N., R.S.C.N., wife of Alan Campbell, B.D.S., L.D.S.—a daughter (Gillian, Frances).

FULLER.—On January 26th, 1950, at Sandestead, to Valene (nee Cox) wife of J. R. Fuller, L.D.S.Eng.—a son (Hugh Dermott.

HART.—On February 1st, 1950, in Victoria Ward, to Penelope (nee Ellis) wife of Dr. R. D. C. Hart, 49 High Street, Wootton Bassett, Wilts.—a third son

STEWART.—On December 10th, 1949, at Broadgreen Hospital, Liverpool, to Wendy (nee Mort) wife of R. A. K. Stewart.—a son (Peter, Keith).

WILLIAMS.—On January 27th, 1950, at Radley Lodge Maternity Home, S.W.19, to Pat, wife of Gordon L. M. Williams, L.D.S.Eng.—a daughter, sister for Penny and John.

DEATHS

LITCHFIELD.—On January 10th, 1950, Percy Collins Litchfield, M.C., B.A., M.R.C.S., L.R.C.P., of 14 Brighton Road, Purley, Surrey.

WHITBREAD.—On January 29th, 1950, in Guy's Hospital Joseph Henry Whitbread (Head Porter 1907/1945), a loyal and valued servant of the Hospital. Age 73 years.

Eds. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1607 *25th February 1950* *Ninepence*

PASSIM

NURSING is more than a profession ; it is a vocation. Florence Nightingale herself could never accept the idea of it being a profession, with all the limitations which this term conveys. Indeed to her it was a " sacred calling " and she vigorously opposed in her time the movement set afoot in 1886 " to provide for their (the nurses) registration on terms satisfactory to physicians and surgeons as evidence of their having received systematic training."

The ideas, opinions and conventions of civilised society inevitably change with the passage of time and today, we can say, people are "regularly conscious." Work and even play are officially prescribed. Previously in these columns we have referred to the limitations imposed by official decree upon medical practice and advancement. Nurses, we fear, may be affected in the same way.

Before a nurse can attain to proper recognition she must be 'State Registered' The protection thereby afforded to an otherwise defenceless public is truly admirable. On the other hand, nursing ability can never be expressed, let alone measured, in the phrases of official statutes. Herein lies the danger; for the standards enforced are no more than the essential minima. By the proficiency displayed in relation to these criteria the aspirant is judged worthy to care for the sick. Yet there is more in nursing, as every one knows, than a quota of technical efficiency. Today, nursing may so easily become a mimicry of nationalised medicine, with the false notion that when people become ill they are to be systematically investigated, accurately diagnosed, specifically treated and subsequently discharged. Ultimate excellence will then be achieved as soon as these machinations work without fault.

No one, admittedly, can learn everything about nursing, any more than one can know all about medicine or become completely acquainted with life itself. Nevertheless the nurse's training, like that of the medical student, is so often just a brief glimpse of one room in the vast mansion of human invalidism. For obvious reasons the teaching hospitals are so much more attractive to the aspiring probationer than those of less repute. The experience thus gained, however, is often far from representative. State registration can be gained, we are told, without any familiarity with the treatment of the acute infectious diseases or the welfare of the aged and chronically debilitated. Yet in these very branches lies some of the greatest interest and more humane problems. Granted the regime is not so scientific but by the exercise of understanding and sympathy—not to be confused with sentimentality—more benefit can often be conferred on needy souls and bodies than by all the intricate manipulations that have ever been devised.

Scope remains, then, for all nurses to gain in their early and formative years of training, some acquaintance with the other branches of nursing besides that concerned with the somewhat selected group of cases in the notable teaching institutions. The aged, the tuberculous, the prolonged orthopædic disabilities, those with the acute infections and the mentally ill may be mentioned. Granted the objection to be raised officially will be that the duration of the training course is limited and not everything, by any means, can be accomplished in the time available. Nevertheless, until the nurse is given from the first a chance to see all that may be required of her in life she may easily become obsessed with an unreasonably narrow view of her responsibilities. To encourage her in the broader outlook will do more than any glamorous posters to overcome the depressing shortage of nursing staff facing so many hospitals, sanatoria and colonies throughout the country.

The Oral Manifestations of Some General Systemic Diseases

By ROGER HOLLAND, M.R.C.S., L.D.S.

An abridged version of the Presidential Address delivered to the Dental Society on October 27th, 1940.

LADIES AND GENTLEMEN,—The choice of this subject for my Presidential Address has not been at random and I hope to put before you a case for taking the widest possible view of our speciality.

Firstly, we will consider the pathological changes that may occur in the mouth in association with general physiological changes.

PREGNANCY

Pregnancy gingivitis is a well recognised condition which may make its appearance in the latter months, and last for some time after the child is born. The appearances are, in many cases, not specific. The gums are bluish red in colour, are swollen and bleed easily on brushing and sometimes spontaneously. Occasionally the condition appears earlier in pregnancy and is more marked in degree and extent, the gingival tissue being heaped-up so as to almost obscure the teeth. In some places pedunculated masses occur, described as pregnancy tumours. Histological examination of these masses show angiomatous tissue covered by soggy epithelium. Excision of the hypertrophied gums during the gravid state is unsatisfactory as a form of treatment, as the masses reappear with great rapidity even though the bases are cauterized and the spaces packed. The condition is probably due to hormonal imbalance, as it regresses spontaneously shortly after delivery in the majority of cases, and again the so-called pregnancy tumour can be produced experimentally in animals by the injection of pregnancy urine extract.

MENOPAUSE

Normally, of course, there are no pathological changes observed in the mouth at the menopause, but occasionally unpleasant symptoms are complained of. One is the extreme dryness of the mouth, tongue and lips. Another is a burning sensation of varying degree, of the tongue, lips and palate. Objectively, there is little to be seen, the mucous membrane of the palate may be reddened and glazed. The tongue too, may be smooth with loss of papillæ and abnormally glazed. Frequently, these patients are edentulous and they blame their artificial teeth for their troubles. The dentures may be adjusted, relined and remade without much alleviation of their symptoms. Successful treatment has been claimed by the administration of hormones and the anti-neuritic Vitamin B1.

THE GLANDS OF INTERNAL SECRETION

Osteitis fibrosa is a disease affecting skeletal structures produced by an excess of parathormone due to an adenoma of the parathyroid glands. Experimentally it has been shown that if a single large dose of parathormone is injected into an animal, that there is a rapid mobilazation of the calcium salts from the skeletal structures, the serum calcium being raised to double its normal value. Generalised osteoporosis with cyst formation of the long bones as evidenced by X-Ray rapidly follows. Precisely these changes and appearances are found in a fully established case of generalised osteitis fibrosa. In humans the disease affects the middle aged and women rather than men in the rate of 3-1, though cases from extreme age groups have been recorded. General symptoms vary in degree. There may be loss of weight, polyuria, pains and stiffness around the joints. Swelling of one or other of the jaws with loosening of the teeth may be the presenting symptoms. X-ray of the jaws shows enlargement and the appearance of the affected bone has been variously described as round glass or orange peel. The area may be cystic. X-ray of the long bones show osteoporosis, which is more readily recognised if a comparison is made with an X-ray taken under comparable conditions of the same bone

of a normal person of the same age and approximate weight. Diagnosis of the condition is made from the X-ray appearance and the blood analysis. Removal of the affected gland produces a cure.

Acromegaly is a disease produced by an excess of secretion normal or abnormal of the eosinphil cells of the anterior of the pituitary gland. It occurs after normal skeletal growth has ceased. It is characterized by great enlargement of the extremities. The mandible, too, is greatly enlarged with consequent spacing of the teeth and disturbance of articulation. The facial features become coarse, there is adiposity and somnolence. Polyuria and glycosuria occur and the patient may complain of intense headache. X-rays of the skull show enlargement of the sella turcicta, and the gross enlargement of the mandible, with spaced teeth.

Myxoedema. In this condition there is a deficiency of the internal secretion of the thyroid. The mouth changes found in this condition are enlargement of the tongue and swelling of the soft palate and uvula. There is an increase in the incidence of caries and dirt pyorrhea due probably to neglect. Everything, including oral hygene being just too much trouble. Another disease affecting skeletal structure including the jaws, is Paget's Osteitis Deformans. The ætiology of the disease is unknown but as it bears some similarity to some of the features of a number of the diseases previously described it is included here. It is a rare disease. Figures given are 1 in 5,000. The appearance of one afflicted by the disease is said to be typical when it is fully developed. The patient has a short squat figure with bent shoulders, curved back, sunken chest, with long arms and a great head hanging forward. He waddles along with bowed legs and turned-out toes with the aid of a stick One of the earliest complaints of the patient is of having to take increasingly larger sizes in hats. Turning to our particular field the maxilla is affected far more frequently than the mandible. The bone of the upper jaw becoming enlarged and embossed, the teeth consequently become irregular and bespaced. Microscopical examination of a specimen of bone afflicted shows excessive lacunar absorption and the redisposition of greater quantities of an inferior type of bone. The teeth are affected by hypercementosis. Sections show irregular lacunar absorption with a fresh deposition of cementum and here again the quality is poor comparable to the inferior bone laid down in the skeletal structures.

VITAMIN DEFICIENCY DISEASES

Vitamin A. In general when this fat soluble vitamin is witheld from experimental animals and when it is reduced in the diet of humans, the result is a greater susceptibility to bacterial disease, particularly of the alimentary and genito urinary tracts. Eye afflictions including night blindness are caused by its deficiency. It has been shown that if a diet lacking in Vitamin A is fed to rats during the period of tooth formation, that among other more obvious manifestations there will be found defective enamel formation. Lady Mellanby has shown in her experiments with dogs that these animals are more prone to paradontal disease if fed on a diet deficient in Vitamin A due in the first place to proliferation and excessive downgrowth of the basal crevice epithelium, and its subsequent splitting with pocket formation. Again deficiency of Vitamin A is thought to be a contributary factor if not a primary cause of the condition of leucoplakia, and as this condition is recognised as being a pre-cancerous one it is of great importance. The characteristic placques of leucoplakia may be found on the inside of the cheeks, the sides of the tongue or gums. They consist of thickened epithelium, the cells of which have lost their translucency and have become keratinized. The incidence of this condition is relatively high amongst some Eastern peoples where, through poverty and malnutrition, Vitamin A. deficiency is a significant factor in addition to local irritant ones such as betel nut chewing.

Vitamin B_1. The only mouth and face symptoms that may be encountered through lack of this anti neuritic Vitamin would be those caused by neuritis of the sensory nerves supplying oral structures. It is recorded that cases of glossalgia and idiopathic neuralgia have been relieved by the administration of Vitamin B_1 which jas been synthesized as Thiamin Hydrochloride.

Vitamin B$_1$. Lack of this Vitamin gives rise to Pellagra, a disease of poverty in many countries especially among maize-eaters. Along with the charateristic skin lesions of the parts of the body exposed to the sun and other general symptoms of gradually increasing weakness, are the less well recognised oral signs and symptoms. While these signs and symptoms are not specific to the disease they may be severe and appear early in the course of the disease. There is a generalised stomatitis and glossitis with perhaps ulceration. The lingual papillæ may be lost leaving a painful shiny tongue.

Riboflavin. This substance is isolated from the Vitamin B complex. Its deficiency gives rise to well marked oral symptoms. The oral mucosa and lips become shiny, abnormally red and have a denuded appearance. Macerated areas which progress to transverse fissuring appear at angles of the mouth. In fact it is supposed that lack of this substance is one of the causes of angular cheilosis or Perlèche. Administration of this factor of the complex alone, has been shown to give rise to remission of symptoms.

Vitamin C. The oral manifestations of Scurvy caused by by lack of Vitamin C are well marked. The gums are hypertrophied and may reach the biting surfaces of the teeth. They are purplish red in colour and bleed at the slightest touch and sometimes spontaneously. The same signs may be found in Barlow's disease, the infantile form of Scurvy, the gingival tissue surrounding the few erupted teeth being spongy and hypertrophied.

Vitamin D. Mellanby has shown that gross hypoplasia of the teeth can be produced by witholding the calcifying Vitamin D from experimental animals, and again in another experiment with four groups of children it was shown that the incidence of caries was increased when Vitamin D was removed or reduced in their food. It would seem that Vitamin D has great influence on the structure of the teeth and some upon their resistance to caries.

INFECTIOUS DISEASES

Measles. A characteristic feature of this illness is the appearance during the prodromal phase of Koplik's spots. They are to be found situated on the cheek mucous membranes, at the junction of the line of occlusion of the molars and premolars. Each consists of a red macule with a small raised white or opal dot about twice the size of a pin's head in the centre. Reddening and swelling of the soft palate and uvula occur to a greater or lesser degree during the course of the illness.

Chicken Pox. This virus produced disease has no specific oral lesions, though it should be remembered that during the course of the illness the spots which are found on the skin may also be found in the mouth and throat giving rise to great soreness. The association between Chicken Pox and Herpes Zoster is well recognized, some asserting that the virus of Herpes Zoster is an atypical form of the Chicken Pox virus. Herpes Zoster may affect the trigeminal nerve giving rise to neuralgic pains along the course of the nerve, which may be premonitary, to be followed by a crop of vesicles on the skin at the terminal nerve endings. Neuralgic pains, too, may persist and give rise to confusion of diagnosis and unnecessary extraction of teeth. Herpes Simplex is a harmless, though tiresome self-limiting condition associated with some febrile conditions such as the common cold or influenza. It consists of crops of vesicles around the lips and mouth which rupture giving rise to sores which take a variable time to heal. People who suffer from this complaint seem to be liable to recurrence. The so-called dyspeptic or aphthous ulcers of the mouth are probably of virus origin, and represent vesicles which have ruptured, forming ulcers which became secondarily infected. They are extremely tiresome, may occur singly or in crops, and vary considerably in size. They are to be found situated on any part of the lips, cheeks and tongue and are very painful. Treatment is directed towards reducing secondary infection, and in some cases the pain, if severe, may be reduced by applying some chemical cauterizing agent such as phenol, though the time taken for healing is thereby lengthened.

Glandular Fever. This is a virus condition usually affecting young people. It is manifested by sore throat, malaise, high temperature and generalised enlargement of the lymph glands particularly those of the neck. Mention is only made here because diagnosis from an acute dental condition involving enlarged glands may have to be made. Another virus produced condition giving rise to lumps in the neck of young people, which sometimes causes confusion, is mumps. It is in the early stage of the illness that mis-diagnosis might occur, when one side only is affected.

Tuberculosis may be seen in and around the mouth in two forms. The first tuberculosis nodulation and ulceration of the tongue, lips, gums and cheek, and secondly as Lupus Vulgaris of the skin of the face and around the mouth. Inside the mouth tuberculosis lesions are most frequently seen on the tongue. The ulcer is formed by the coalescence of tuberculosis nodules which caseate and then break down. The ulcer so formed has a scalloped mouse-eaten edge, is shallow, very chronic and painful. Tuberculous ulceration of the mouth is nearly always secondary to pulmonary phthisis in the active state, though it is claimed that in some cases, the infection of the oral mucous membrane may be primary from the drinking of milk heavily contaminated with tubercle bacilli of the bovine strain.

Syphilis. Manifestation of this disease in its congenital and aquired forms may be seen in the mouth. In the congenital form the incisor teeth of the permanent series may be conical in shape with crescentic notches missing from their incisor edges. The molars are dome shaped with poorly developed occlusal surfaces surmounted by ill-defined cusps pinched and hunched together. Around the corners if the mouth may be seen radiating scars and puckerings termed rhagades.

Of acquired syphilis each of the three stages may give rise to manifestations in the mouth. The primary chancre may occur on the lips or the tongue. It is a shallow ulcer set on a hard indurated base with square cut walls. The Wasserman reaction may not be positive and diagnosis may have to be made by finding the motile spirochæte under dark ground illumination in freshly expressed fluid from the sore.

The characteristic lesion in the mouth of the secondary stage is the mucous patch. These may occur anywhere on the oral mucous membrane. They are usually oval in shape, slightly raised and glistening white in colour. By the break down of these mucous patches, the so-called snail track ulcers are formed. The saliva at this stage is highly infective and the Wasserman reaction strongly positive.

In the tertiary stage gummata may occur on the tongue, palate and uvula. The appearance at first is of an indolent abscess which eventually breaks down to form the characteristic ulcer. The ulcer may remain superficial or extend deeply to involve bone. This is the commonest cause of extra congenital perforation of the palate.

Hyperkeratosis of the epithelium has already been mentioned and syphilis is a proven cause of some cases of leucoplakia of tongue and cheeks.

SKIN DISEASES SHOWING ORAL MANIFESTATIONS

As might be expected, because of continuity of tissue the mouth may be the site of manifestations of general skin conditions and examples have already been given in the exanthemata.

Lichen Planus is a generalised skin condition the exact cause of which is unknown. A virus infection is suspected in that the initial lesions have at times been seen to occur along the line of a scratch.

In the mouth the lesions are most frequently to be seen on the posterior parts of the cheeks in the region of the molar teeth, though patches do occur on the gums, the floor of the mouth and the sides of the tongue. The appearance is of pearly white dots and communicating white streaks, and it has been likened to strings of fine pearls or Nottingham lace. The disease in itself gives rise to few symptoms, in fact, the mouth lesions may be completely overlooked for a long time. Their importance lies in their diagnosis from more serious conditions such as the mucous patches of syphilis and leucoplakia.

Another skin condition which can produce lesions in the mouth is *Erythema Multiforme*. These lesions take the form of vesicles or bullæ which rupture leaving a painful, ulcerated condition. These bullæ may be situated anywhere on the oral mucous membrane, the lips, tongue, cheeks, uvula or posterior pharyngeal wall. Moreover, some authorities state that the mucous membrane of the mouth may alone be affected without any cutaneous lesions developing and giving rise to a recurrent stomatitis.

BLOOD DISEASES

Diseases of the blood and of blood forming tissues frequently give rise to characteristic signs and symptoms in the mouth and furthermore these mouth signs and symptoms may be the earliest manifestations of the disease. Their early recognition and confirmation is of utmost importance as injudicious operative measures may quite literally be disasterous.

Leukæmia. All forms of leukæmia, myelogenous, lymphatic and monocytic, may give rise to mouth signs and symptoms. These vary in degree, but in general take the form of hypertrophy of the gums which may be so excessive as to almost obscure the teeth. The colour of the overgrown gum tissue is purplish and is subject to spontaneous hæmorrhage. Superadded oral sepsis which may be gross may be present.

In *agranulocytosis* the clinical findings in the mouth are of a non specific ulcerative stomatitis and in extreme cases of gangrene of the fauces and posterior pharyngeal wall. Generally there is extreme weakness, malaise and prostration. The disease carries a high mortality rate.

In *pernicuous anæmia* the sensation and the appearance of the tongue is considered of diagnostic importance. It is red and because of the atrophy of the papillæ it is smooth and glistening particularly at the sides and around the median fissure. The sensations the patient experiences in the tongue are occassionally numbness though more often smarting and burning especially following the ingestion of seasoned and spiced foods. It has been stated that the appearance of the tongue can not be explained by the presence of gastric achlorhydria or the absence of the intrinsic factors, but it is to be regarded as being due to a failure to absorb Vitamin B and is, therefore, related to the Pellegra syndrome.

About the Park

In spite of the Residents' play running for one extra night this year, the President has received applications for many more tickets than can possibly be allocated. If therefore you do not get the seats you require don't shoot the President who, like the pianist, is doing his best.

Talking of pianists, Messrs. Gruchy and Scott, who in the early 1930's produced such delightful music for the Residents' play, will be back for the last two performances this year. They will, we hope, be playing some of their old tunes again.

" Buss," who became such a personality among the College porters of recent years has left " for a situation of advancement elsewhere." He writes appreciatively of the good times he enjoyed at Guy's and of the various people at the Hospital with whom he came into contact. In particular he thanks the Warden, Matron and Residents of the College for the consideration extended to him.

The edition of *Pulse* which came out last week carries another excellent feature about antique furniture. This time it concerns eighteenth century furniture, and we strongly recommend those of our readers who can do so to visit the hall of the Medical School and look at it.

Joseph Lister and the Beginnings of Modern Surgery

By H. C. CAMERON, M.D., F.R.C.P.

Consulting Physician Emeritus for Diseases of Children, Guy's Hospital.

Part of a lecture delivered before the Physical Society on 26th January, 1950.

LADIES AND GENTLEMEN,—It is, if you think of it, an astonishing fact that modern surgery, in all its complexity and power, has been developed in the span of a man's lifetime—almost if not quite within my own life time. On a morning in the Spring of 1865, when Joseph Lister stepped from his carriage at the door of the Old Royal Infirmary in Glasgow and was met by my father, who was his house surgeon, and a band of eager dressers, modern surgery had its beginning. For in his hand Lister carried his first specimen of crude carbolic acid, what was called then German Creosote, a thick liquid, black and oily from impurities, and completely unmixable with water—which he had determined to make use of according to a plan he had carefully worked out beforehand upon a case of compound fracture. Up till that time no case of compound fracture had been known to recover. After intolerable suffering all died. The little boy who was to make history by getting well was called Jimmy Greenlees.

Hospital Sepsis.

I think perhaps I can best describe the awful conditions of sepsis which then prevailed in all hospitals by reading to you a brief description of them by my father. He had been there, in the thick of it, in the stench and beastliness of it, with disease, suffering and mortality upon a scale that the present generation has encountered only in the concentration camps of Hitler.

" In almost all wounds, whether inflicted by the surgeons or by accident, inflammation and suppuration, with their inevitable accompaniments of pain and fever, were expected as a matter of course. And these things were only the beginnings of evil. No matter what skill and care had been expended on the making and the dressing of the wound, the issue was necessarily looked forward to with doubt and anxiety. Few of those who did recover did so without serious episodes and complications of some sort. All suffered from pain and fever more or less pronounced and very many only reached the *terra firma* of convalescence by swimming for their lives throughout weeks or months of painful illness. Secondary hæmorrage, lock-jaw, erysipelas, blood poisonings of various kinds and hospital gangrene were never all absent from the hospital wards at any one time ; and repeatedly hospital gangrene and pyæmia became alarmingly epidemic. To quote the words of a contemporary and competent witness, Sir James Simpson, " The man laid on an operating table in one of our surgical hospitals is exposed to more chances of death than was the English soldier on the field of Waterloo ! In the absence of any certain knowledge of the real mode of causation of these wound-begotten diseases and, therefore, of any sure means of avoiding their occurrence, the surgeon felt no real personal responsibility regarding them, whatever grief and disappointment he might experience when his best efforts repeatedly ended in disaster and failure. When his patients were decimated and his heart well-nigh broken by those terrible visitants (now, thank God, to all intents and purposes banished forever from operative surgery) he received the sympathy of his friends and pupils. He had done his work well and a hail in harvest had come to destroy it. He was in no way to blame. He was a man beset by misfortune,"

Or this from the popular surgical text book of my father's student days, " Bell's Principles of Surgery":

" A young surgeon . . . may learn the various forms of incisions, operations too, and the manner of dressing wounds ; but the way of curing wounds he

cannot learn. Every patient he takes in hand (do what he will) must die of gangrene . . . . What then is the surgeon to do? Is he to try experiments with ointments and plasters while the men are dying around him? Is he to seek for washes or dressings to cure such a disease as this? No, let him bear this always in mind, that no dressings have ever been found to stop this ulcer, that no quantities of wine or bark which a man can bear, have ever retarded this gangrene; let him bear in mind that this is a hospital disease, that without the circle of the infected walls the men are safe; let him therefore, hurry them out of this house of death; let him change the wards; let him take possession of some empty house and so carry his patients into good air; let him lay them in a schoolroom, a church, or a dung-hill or in a stable; let him carry them anywhere but to their graves."

Thus graphically does Dr. Bell, many years before, give the same advice as Sir James Simpson, Mr. Erichson and many others that the only way to abate the plague was to pull down the hospitals. But Lister was to devise a way that within twelve months, as by a miracle, had freed his wards from the contagion and permitted him to operate in confidence and safety.

A Diffident Personality.

Soon after qualification Lister's diffidence and lack of self-confidence—all his life, even in the hour of his overwhelming success he was distrustful of himself—began to show itself. It alarmed him to feel how little he knew even of the common diseases; now that he was qualified he might encounter others of which he was completely ignorant. How much harm might he not work upon some patient entrusted to him because of his ignorance. Might not his career be blasted at the outset by the errors he would surely commit. These insistent doubts and fears could only be put to rest by a further prolonged period of study and he determined to spend two whole years in a tour of the European Schools of Medicine.

As a preliminary he was advised by his kind teacher, William Sharpey, to spend a month in Edinburgh with his friend, James Syme, at that time probably the leading surgeon in Europe. Syme received him with open arms. All thought of the European tour was abandoned. He stayed in Edinburgh and became in turn Syme's House-surgeon and Assistant Surgeon, and there he married Syme's elder daughter Agnes, who thereafter, so long as she lived, was a strong support to him in all his difficulties.

Surgery in the Mid-nineteenth Century.

Syme was a daring and resourceful operator. There is an eye-witness account of one of his operations when he was assisted by Joseph Lister. In Syme's day there was almost no means of controlling hæmorrhage. Blood spurted high from every incision, blood welled up in the depth of the wound, obliterating the anatomical outlines. If the patient was not to bleed to death almost incredible dexterity and speed must be shown by the surgeon. These momentary, tense struggles between life and death in the great operating theatres were witnessed by huge crowds of doctors and students who were appreciative of success, but merciless critics if there was any fumbling or hesitation.

A man had been admitted to Syme's wards who had been stabbed in the neck in a public-house brawl. The carotid artery had been wounded and a huge pulsatile aneurysmal swelling had formed in the neck. Syme determined to operate to save two lives, the patient's life and his assailant's, who was in custody. The audience saw Syme and Lister take their places, Lister's brow, as usual bedewed with sweat. Always at his operations a nurse had to be set aside with the sole duty of wiping the moisture of his anxiety from his brow. Syme made a deep incision in the neck; blood spurted, blood welled up everywhere. They saw four hands busy in the depth of the wound, with ligatures held on a curved needle. Every now and then they glanced anxiously at the patient's face, fearing that sudden change to the pallor of death which

betokened the end. Suddenly Syme straightened himself; they could see that, in a matter of minutes, the hæmorrhage had ceased and a burst of applause and a buzz of excited conversation succeeded to the tense silence.

Lister enjoyed himself in Edinburgh. He had no private practice but his reputation as a skilful surgeon, the deviser of many new operations and of instruments to facilitate them, grew apace and no one was surprised when, at the age of 33, in 1860, Queen Victoria appointed him Regius Professor of Clinical Surgery at the University of Glasgow.

The New Principle.

For the first four years in Glasgow, Lister pondered much on the nature and cause of this all-pervading sepsis, which brought to nought all their endeavours, but no light came to him. The only thing that was plain to everyone was that while whenever the skin was broken and the fracture compound, death from sepsis was inevitable, when the skin remained intact no sepsis developed. In some way the entrance of air was responsible. Then in the early months of 1865 Lister read the recently published work of Pasteur, upon the fermentation of saccharine solution by the microscopic yeast plants carried in the air. To Lister it seemed clear that Pasteur's work had provided the solution of the mystery. Putrefaction and suppuration were not due to the air as such but to this undreamt of content of organic life. In compound fracture, he concluded, it was necessary to erect an " antiseptic " barrier between the wound and the air, to take the place of the broken skin and to play the part of the skin in excluding these ubiquitous microscopic organisms.

His first attempt with Jimmy Greenlees was very simple. After thoroughly cleansing the wound, he covered it with a layer of lint soaked in the German creosote. To diminish evaporation he covered this with a layer of tin foil and enveloped the whole in what he called a mass of absorbent material to collect the discharge. As a result, under the lint, there formed a tenacious crust of blood clot, infiltrated by the carbolic acid, which completely covered the wound and which was allowed to remain undisturbed. Under it healing proceeded slowly but without suppuration or fever.

The disadvantages of this, his first attempt, soon became apparent. The crude carbolic acid was intensely irritating and caused widespread ulceration of the skin where it came in contact with it. Jimmy Greenlees, though he got well, cried a good deal from the pain of it.

But fortunately just at this time Calvert, the chemist whose name lives on in advertisements of toothpastes, produced a pure carbolic acid in crystalline form soluble in 20 parts of water and to almost any extent in oil. That gave Lister just what he wanted. A watery solution could be used to sterilise hands, instruments, tin foil and everything which came into contact with the wound, while he found that a strong solution in boiled linseed oil was far less irritating to the tissues and very retentive of the carbolic acid which it yielded slowly to the fluids secreted by the wound. The first dressing of lint was superseded by a putty made of carbonate of lime mixed with this carbolic oil and spread uniformly over the under aspect of the tin foil. Finally he interposed between the wound and the " barrier dressing," as he called the carbolised putty, a layer of material to protect the wound from all contact with the irritating carbolic. It took Lister many months of patient experimenting before he found what he wanted in what he called his " green oiled silk protective." He sterilised it like everything else by immersion in 1 in 20 carbolic acid lotion, painting it first with dextrin to ensure a thorough wetting. The carbolic acid on its surface when placed on the wound was soon absorbed and thereafter it effectively prevented contact of the irritating carbolic acid in the barrier dressing with the wound. " An antiseptic," he wrote, " to exclude putrefaction with a protective to exclude the antiseptic will, by their joint action, keep the wound from abnormal stimulus." Curiously enough his green oiled silk protective, prepared with such care for its special purpose, still has a large sale in chemists shops, though that purpose is quite forgotten and no one knows what it protects from. It is used to cover fomentations.

This was the method of the Glasgow days. It was dramatically successful. The next year, 1866, Lister could write to his father " Fifteen cases of compound fracture were treated by my last house-surgeon, Hector Cameron, and every one of these men and women are living with their limbs on." From every country in Europe, surgeons came to view the marvel and returned to find themselves able to repeat his success. Only London doubted and disbelieved.

In 1869 Lister returned to Edinburgh to succeed Syme who had had a stroke. In many ways Syme was a great man, but perhaps in his complete acceptance of his son-in-law's teaching, replacing, as it did, so much of his own, and in his enthusiastic recognition of its epoch-making significance, he showed at his greatest. When the old man, who had been the greatest surgeon in Europe, limped slowly in Lister's train round the wards which had once been his own, wondering and admiring, he used to pause by a patient's bedside to congratulate him on his good fortune and to assure him that it had not always been so.

Improved Technique.

In Glasgow Lister's methods, though completely successful, had been complicated and cumbrous and not easy to follow for any who had not been trained directly under his eye. In Edinburgh he set about their simplification. He decided to replace the non-absorbent dressing by an absorbent one. The putty and the shellac which had succeeded it were abandoned for something porous and absorbent. The difficulty was to find the right material. Lister, of course, had to make all his dressings himself at a time when there were no makers of surgical dressings, appliances and instruments.

For his new absorbent dressing the right material was searched for in every warehouse and shop in Edinburgh. In the end he found it in the bookbinders trade. What was called book muslin proved ideal. We can still catch sight of this book muslin, the first surgical gauze, fulfilling its original purpose when the back of some old book has fallen away, exposing it holding the bundles of pages together. When he had successfully impregnated it with the mixture of carbolic acid, paraffin and resin he was then using, he found to his great joy, that it quickly sucked up a solution of Liebig's extract of meat and that thereafter it delayed putrefaction for many weeks.

But then a new difficulty presented itself. Although the gauze was used in a thickness of eight layers the discharge sometimes seeped completely through the pad and a stain on the bandage appeared. In order to spread the discharge evenly through the antiseptic pad a further layer of something impervious had to be inserted. Again the search in every factory in Edinburgh began. This time he found what he wanted in the hat trade. What was known as hatters' lining proved just right for the purpose. The only drawback was that its yellow colour was very much that of his carbolic gauze and he found that sometimes by carelessness the whole composite pad might be put on inside-out. The hatters' lining—Lister was always meticulous in his instructions—was to be inserted between the seventh and eighth layers of the gauze. But if put on inside out as sometimes happened with careless dressers, there was then but one layer and not seven of the gauze next to the wound. To prevent this accident Lister had it dyed a contrasting pink. Today it is sold as jaconet and used to cover splints and make aprons and it is still usually religiously dyed pink.

At an operation Lister never wore an overall. Taking off his coat he rolled up his sleeves. Then a large clean but not sterilised huck-a-back towel was pinned over him and fastened behind. He sterilised his hands by prolonged immersion in carbolic acid lotion. The instruments lay in trays of 1 in 20 carbolic. Then in complete silence he began to operate.

The Spray.

But if in the Edinburgh period the proceedure was simplified in some way, in another it became more complicated. Lister began to spray the air in an attempt to lessen the risk of airborne infection. At first the spray was worked

by hand and relays of perspiring dressers took turns at it. The last hand spray was commonly called the " donkey engine," an enormous machine on a tripod. was commonly called the Donkey Engine, an enormous machine on a tripod. The citizens of Edinburgh grew used to seeing Lister uncomfortably sharing the narrow accommodation of his brougham with this gigantic engine of his warfare. Later a compact model worked by steam was invented and gave great satisfaction. It was always carried into the theatre by the house surgeon. Once as the procession entered, Lister's mobile face solemn and set as he pondered the responsibilities he was about to undertake and the sacred spray held high behind him, someone in the gallery was heard to intone " Let us Spray."

Lister was never very happy about the spray. He always doubted its efficiency and its necessity. His decision to adopt it seems contrary to his usual scientific approach. He conducted no experiments. It is not easy to understand why Lister in this one instance acted in a way so unlike his usual procedure, but perhaps it explains his attitude towards the spray. He felt none of the confidence in it which he had in the rest of the technique. Of all the ridicule which he had to endure, that which the spray produced distressed him most. He first recommended the spray at the Plymouth meeting of the B.M.A., in 1871. At the International Medical Congress held in London in 1881, he thus spoke of it. " Nevertheless I am aware that concomitantly with the perfecting of the spray, there has been an improvement in other parts of our antiseptic arrangements, and it may be for ought I know, that when the International Congress next meets, I shall be able to speak of results of a still higher order obtained without using the spray at all. Then no one will say with more joy than myself Fort mit dem Spray." It was a cry which had been heard in Germany for some time. He gave up using it in 1887. At the International Medical Congress in Berlin in 1890 he thus took himself to task. " As regards the spray, I am ashamed that I should ever have recommended it," and he went on to foreshadow the future of surgery. " But if, besides the spray, we give up all washing and irrigation of the wound with antiseptic our vigilance must be redoubled. Yet I believe that with assistants duly impressed with the importance of their duties, the task would prove by no means difficult."

No Gifted Speaker.

In 1877 Lister reluctantly accepted a call to leave Edinburgh and carry on his work at King's College Hospital, London. London, because of its disbelief, called him. In many ways Lister was very ill fitted to be the exponent of a new principle of surgery, the missionary of a new gospel. All his life he was never to write a book; that would have meant for him unending toil. Even a short paper on a subject of which he was a master involved him in months of preparation, with, in the early days, journeys to Edinburgh to consult with Syme as to how to phrase his remarks or in later years a vast amount of correspondence with my father. In speaking he had less difficulty, although he never lost the slight stammer which betrayed his hesitancy and self-conciousness. In speaking his difficulty was to know when to stop. Lister, to quote from a letter to his brother Arthur, the great zoologist—" Everything went well and the address is delivered and I think I may say with thankfulness successfully. I began it at about 11.15 and about 12.55 the President passed me a slip of paper asking me if I was aware that there was a rule to the effect that addresses were not to occupy more than an hour. It was a good thing I did not know of this rule. For I could not have said what I wanted in the time. The first division was written beforehand, the second was finished thinking of at 3 this morning and the third was finally arranged and the dates and facts looked up in note books after breakfast this morning. At 10.30 the mayor's carriage was at the door to take us to the meeting. The notes of one of the most important cases was looked over as I drove along in the carriage."

At the meeting of the Association at Edinburgh in 1875 there is the same tale told in Agnes' triumphant account after her husband's success in the section of physiology as the thief of time.

" I must send you a few lines," she writes to her mother-in-law, " to tell you that Joseph's physiological demonstration was exceedingly successful. Two hours was all the time at the disposal of the section, and three quarters of an hour at the commencement had been allowed to Joseph by Dr. Burdon Sanderson as President. But additional time was again and again awarded to him by acclamation and he continued till just about the conclusion of the two hours."

" Other speakers had not the same opportunity of distinguishing themselves. Their papers had to be taken as read."

Scepticism in London.

In removing to London, Lister felt that he was called by the disbeliefs of the London surgeons. Perhaps his presence in their midst might do what he had failed to achieve by what he had written and by what he had spoken. I have no time to tell you of all the difficulties he there encountered. The surgeons of London, proud of their marvellous skill and rapidity in operating were by no means men of science in any way fitted to understand a new scientific truth. To them this study of microbes was patently rubbish. One of them, it is said, used to slam the door of his theatre to keep out Mr. Lister's microbes. They did not understand the theory of Lister's antiseptic barrier. They took it that he was advocating only a new and strong antiseptic and so they set to work with a will, swilling and irrigating the wounds with the carbolic acid which Lister was at such pains to deny contact with the wound. The result was generally carboluria and other symptoms of carbolic acid poisoning. To the end, at all meetings, there were always to be found London surgeons decrying and ridiculing his claim. Yet Lister's mission did not fail of success. Only three years after he came to London the men who really mattered, at a memorable meeting at St. Thomas' Hospital, one after the other, Paget, MacCormac, Spencer Wells, Tom Smith, Jonathon Hutchinson and others, announced their conversion and retracted their opposition.

There was, when Lister first came to London, only one hospital where his name was revered and his teaching adopted by its younger surgeons—Guy's. The Steele Diaries published in the *Gazette* show that some years before Lister had even left Edinburgh, Guy's purchased eight carbolic sprays for use in the wards. That this was so was due to Sir Henry Howse. As a young man Howse, on hearing of Lister's claim, had made straight for Glasgow where he spent many months in learning Lister's methods. Throughout his long time at Guy's he meticulously carried out these methods and as Sir William Hale White told me, with such success, that all the surgeons appointed after him were Listerians, beginning with Mr. Davies-Colley's father. To the end, years after Lister had discarded it, Howse stuck to the carbolic spray. Mr. Mollison, who was at Guy's a year ahead of me, began his time as clerk to Howse with the spray in full blast and ended as house surgeon to Mr. Lane, in whose dexterous hands modern surgery proceeded apace. Sir Arthur Hurst had a still more astonishing experience. Some years after he had retired, in 1901, Howse consented to perform an operation on an old patient and he asked Hurst to assist him. The spray was re-embodied and put in action for the occasion, with Hurst in charge.

The conversion of many of the leaders of surgery was due to the results which Lister was able to show at King's. In safety he could attempt that which had never been attempted before, the wiring and clamping of fractured bones, the opening of joints, the radical operation for removal of mammary cancer, the drainage of the huge tuberculous abscesses then so common, which other surgeons were forced to leave alone for fear of sepsis. All achieved with safety and without suffering to the patient, yet London surgery as a whole was never really converted to antiseptics. In the end she was to be persuaded not so much by the direct appeal of Lister's argument, nor by his presence in their midst and the miracles he wrought among them, as by the impact of a returning wave from Germany which carried his doctrine back, perfected and resplendent, in a new dress and with additional trappings.

It was what Lister himself had foreseen, though in old age he often deplored the complexity of the method which after long labour he had made so beautifully simple. He himself had tried to do without antiseptics. In his commonplace book for November 6th, 1883 is and account of such an attempt, successful in its result. It tells how, "At 10 a.m. a kettle having been brought fully to the boil in the kitchen was brought upstairs and left to cool." The autoclave was not yet invented and the kettle in the kitchen had to serve his turn. But London, never having learned about Lister's antiseptic principal, proclaimed that it had not embraced aseptic surgery, something different from and superior to antiseptic surgery. Lister had himself coined the word aseptic, though he afterwards found it in Hippocrates to use of the state of a wound. He could conceive of an aseptic state or an antiseptic method. It would never have occurred to him to speak of aseptic surgery or an antiseptic wound. In the theatre at Guy's I once listened to a lecture by Sir Arbuthnot Lane in which he contrasted in this way what he called aseptic surgery, modern and up to date. the new testament to the demoded old testament of Lister's, representing what was a mere alteration in proceedure, foreseen by Lister, as a different school of thought and practice. When I broadcast a little time ago on Lister's life and work I felt it necessary to say what I thought of the attack of another brilliant Irishman, Bernard Shaw. "A surgeon named Lister," Shaw wrote in his Political What's What, "had just brains enough for the crude germ theory and though his manual dexterity was below the average, his precautions against microbic infection involved such an access of æsthetic cleanliness that the consequent disappearance of hospital gangrene made him famous." When I criticised this nonsense the producer was at first a little doubtful, "we don't normally attack Bernard Shaw on the wireless," she said. So I think at Guy's we don't usually attack Arbuthnot Lane, but about Listerism he was sadly ignored.

The End.

Lister's end was sad. In 1893, just after he had retired from King's, his wife died of pneumonia while they were on holiday at Rapallo in Italy. He carried on bravely but he was never the same man again. In 1903 an obscure illness laid him low and thereafter he was forced to lead the life of a complete invalid, incapable of any exertion and seeing no one except my father. Of his unhappiness I have written at length, perhaps at too great length, in my book, As a child lives again in his uneasy sleep the too exciting events of the day, so Lister in his old age seemed to live over again the troubles of the past. His thoughts constantly turned to the ridicule and opposition to which he had been subjected. He seemed to have forgotten altogether his successes—that some four years after the first statement of the antiseptic principle he had been recalled to Edinburgh to fill the most important chair of surgery in Europe; that within three years of his coming to London, Paget and many others had repented openly of their former disbelief. It was a fault of perspective which he could never overcome.

When in 1902 he received the high honour of the Copley Medal of the Royal Society, he ended the speech in which he returned thanks thus :—"I have often thought that if I did deserve any credit, it was at the time when perfectly convinced of the truth of the principle on which I acted, and persuaded also of the importance to mankind of being able to carry out that principal and practice, I worked for years together with exceedingly little little encouragement from my professional brethren. There were however, two great exceptions, my father-in-law and my students." And again on the occasion of his 80th birthday when as might be expected the Royal College of Surgeons sent a gracefully worded tribute, he wrote to my father "addresses have come from home and abroad, many of which I have not had time to acknowledge. One of the most remarkable is from the Council of the College of Surgeons. I could not have believed that that body could so express itself." He could not believe that the animosities and misunderstandings of 30 years before had long ceased to exist.

Park and Prospectus

WE are devoted to the Park. We emerge into it from the Colonnade every morning—well, five mornings out of seven—with hope rising in our student heart that to-day at any rate, we shall not, within some ninety minutes, find a compelling reason to traverse it again in the direction of the "Spit." When, an hour after our first arrival, we are duly discovered in that subterranean haven, we lightly dismiss the significance of the event by reflecting that as, this time, we crossed the Park below ground, it is clearly a journey which doesn't count. Every evening—well, some three evenings out of five—we cross it again as we leave, bearing on our faces the pensive expression often engendered in such as ourselves by the effort of recollecting the Wonders of Science we have met during the day: we knit our brows together over the even more mystifying problems we have avoided, accompanying this impressive piece of facial acrobatics with a soft sibilant sound as we draw breath inwards through our teeth in a manner peculiar either to those who are amazed, doubtless, at the coy behaviour of the Zwitterion, or else to others who, like ourselves, remember with smug satisfaction the almost indecent haste with which we escaped from the Practical that very afternoon. As we cross the Park again at three o'clock, homeward bound, we assure ourselves once more of our devotion to its varied scene.

We thought we had sampled all the manifold delights of this hallowed area when, in a flash, by some unlooked-for trend of circumstance the whole position metaphorically changed. (We are prompted to enquire whether "-phorically" has an "ortho-" and "para-" position too?). For the first time in our limited experience we succeeded in obtaining a copy of the Hospital Prospectus. A modest little book, and inoffensive enough to be sure, but what thunders echo from within those silent covers! (We contend that such a paradox is, nevertheless, "ortho-" on this occasion).

Now it may be that every student, on entering the Medical or Dental School, has already seen the Prospectus. In that case we consider ourselves to be a notable exception. We find it most gratifying, after having decided many years ago what we were out for, to discover at long last, what we are in for. We have read the whole gamut with undeniable satisfaction. But what impresses us most in this little green volume is not the description, soberly set forth, of the course "the student" should tread; not the panorama, decently displayed, of Laboratory, Library or Pavilion; not, indeed the array of Prizes, Scholarships, or Appointments for which, we observe, we are eligible. It is none of these things—stimulating though they may be. But rather it is the panoply of intellectual and professional talent revealed in the lists of those at whose feet we sit from day to day. We are profoundly moved. Many as yet, are mere names to us, but so deeply are we affected that what till now was a casual progress across the Park through a varied array of strange faces becomes, each time, an expedition frought with excitement and discovery. Can this distinguished figure be found, named for all to see—in the Prospectus? Does that group of greying specialists find place, severally—in the Prospectus? What speculative themes now engage the mind as we cross this acre! No longer is, "That's the man we saw in the Park!" sufficient. No indeed. The supreme triumph gleams when we can say, "Why, bless my soul! if that isn't the very person we read about in the Prospectus!" The Prospectus! It could turn men into gods! It would persuade us of anything. We are even tempted to believe that if some enlightened dignitary, with unusual daring and vision, were to issue a PROSPECTUS OF THE NEW GUY'S, so great would be the impact of that apocryphal document that the present Hospital buildings might, under its powerful influence, deem it necessary to toe the line and conform. We commend this, as a possible solution, to the boards of governers, architects, and builders now pondering (we believe) on how it is all to be done. We will tell you—Issue a Prospectus. After all, it would be a grand advertisement; an advertisement to which, in company with so many cogent specimens of rather different ilk, one might add (doubtless with more truth) the irrestible postscript: "Only needs seeing."

Correspondence

Sport

SIR,—Your pages have of late often carried matter from your own pens and from others extolling the virtues of sport especially as an important contribution to a doctor's training. Your last "Passim" continued the argument and went further to suggest that those who do not play games are at a disadvantage when compared with those that do. As one of those "who, to the exclusion of games, spend their time studying art or, music, or literature, which may enrich but do not strengthen the character," and having thereby ended, "perhaps with a prize or two, but . . . . with a head full of facts and an undeveloped character," I have been stimulated by these denigrating comments to voice a dissentient opinion.

I am not in a position to deny that insofar as I am concerned they may be fully justified, but I doubt the general truth of your argument as applied to the student body as a whole.

There can be no doubt that indulgence in healthy, outdoor excerise is beneficial for nearly all of us and amongst the advantages to be gained by athletic prowess, apart from physical development and possibly strength of character, I suppose must be considered, not least, the gratifying adulation, especially of the fairer sex, which attends one's efforts. No one has yet however shown that numbered among the benefits to be gained is skill in doctoring

Neither I nor anyone else would suggest that sporting activities on the other hand are in any way detrimental to the achievement of medical excellence. We have amongst us at the Hospital far too many illustrious examples of those who once eminent as sportsmen are now equally or more eminent in their professional spheres to enable the idea to be entertained for a moment. But have we not also those equally eminent professionally, to whose strength of character all will testify and to whom sport is without interest if not anathema? Do we not also know of those, their sporting ability renowned, whose chances of becoming doctors, let alone good ones, occasionally seem in doubt.?

There are all sorts of people and all sorts of doctors, each fulfilling a need for one of his kind. Many of these may be helped to better doctoring by indulging in physical activities, but others may equally benefit from more intellectual pursuits and it would be better to recognise these differences without claiming superiority for either type. If the hand which is most skilled at wielding the bat, or even impelling the dart, may also manipulate the neatest scapel, may not the musician's ear best distinguish those difficult murmurs or the artist best differentiate the delicate tints of similar exanthema?

I feel Sir, that the beliefs you have declared are insufficiently tempered with moderation and have been subject to too little consideration before expression. Your enthusiasm has even caused you to transgress your own plea for clarity of exposition published in the "Passim" of your previous issue. Is not the phrase "which may enrich but do not strengthen the character," somewhat contradictory? Even accepted as you state it the conclusion would seem to be that it is better for a doctor to possess a strong character, poor and bereft of gifts, gained by sportsmanship than a rich character of doubtful strength. The desirability of either of these is arguable, but I do not suppose that is what you meant.

Let those who wish study pathology at the demonstrations on Wednesday afternoons and those who prefer it study the motions of a pneumatic spheroid at Honor Oak Park. I believe each have equal chances of becoming good doctors of their own sorts.

Yours, etc.,

D. C. DEUCHAR.

Guy's Hospital, S.E.1.

Sport

SIR,—The sweeping statements in "Passim" of February 11th must not pass unremarked. Few would deny the importance of games to those who are also mentally energetic, but to suggest that a rugger player, a mountaineer, a yachtsman are better equipped for their work than one who "ends up with a prize or two and a head full of facts," is ludicrous.

There is another naive opinion expressed in the same paragraph. Time spent in cultivating art, music or literature is wasted, it would seem, as far as the moulding of character is concerned. To exclude these is to exclude the culture, the subtlety, the appreciation of fine works which should be the hall-mark of an educated person.

Yours, etc.,

Guy's Hospital, S.E.1. BARBARA ALLEN.

The Buffaloes

SIR,—Your story "About the Park" in the *Gazette* of 11th February lass regarding the late Joe Whitbread and a certain Senior Honorary is a good one, but not strictly accurate.

About twenty-seven or twenty-eight years ago—not on a Saturday night, the said Senior Honorary disturbed a number of residents and others, who were having a quiet aperitif at The Ship and Shovel, with the news that he had passed the first part of the Fellowship—naturally more "aperitifs" etc. were consumed, and we were all very ready to accept an invitation some time later to be initiated as "Buffaloe's" at the New Lodge, which was being opened that night at "The Ship."

There was some delay partly owing to the ritual of an opening session, and amongst other things the memorising of the pass-words. Eventually we were led blindfolded up the stairs to the Lodge. When the handkerchiefs were removed from our eyes, we found ourselves in a very crowded room presided over by the "Grand Primo"—Joe Whitbread.

Some weeks later I attended the next meeting of the "Buffs" to thank them for a very generous gift to the Children's Ward at Guy's.

Among the seven or eight "Guy's Buffs" present that night were a well-known provincial E.N.T. surgeon, a South African E.N.T. surgeon and three present London consultants—as far as I know, all well. The Worthy Grand Primo—Joe Whitbread—has passed on. May he rest in peace.

Yours, etc.,

"ONE WHO WAS THERE"

Bury St. Edmund's.

PRINCESS TSAHAI MEMORIAL HOSPITAL—ADDIS ABABA

A letter has been received from Lord Winster, chairman to the hospital, appealing for funds to equip the main operation theatre. The sum required is £3,500 and, with this to hand, the hospital should be ready to open at an early date. The object is a most worthy one.

Cheques and postal orders should be drawn in favour of the Princess Tsahai Memorial Hospital and addressed to the Honorary Treasurer, c/o to Messrs. Gould and Prideaux, 88 Bishopsgate, London, E.C.2.

Reviews

The Middlesex Hospital. By HILIARY ST. GEORGE SANDERS. Max Parrish. *Price* 8*s.* 6*d.*

Into this book must have gone a very great deal of painstaking research. It is, for the most part, easy to read, and will be of great interest to anyone who has any connection whatever with the Middlesex Hospital. In its factual content it is admirable. Here are to be found all those names, decisions and occasions which have made the Middlesex what, not only to its supporters, but the whole medical world know it to be,—a great institution. But it cannot be read, particularly by a Middlesex man, without a little hesitation, for as the cover says of the author, "His power for dramatic story filling from past records and contemporary events is used to the full in this history." Those who would be most interested in this book know best of all that the evolution of such a hospital is not a drama, but a dogged growth from small beginnings, gradatim, until something is established whose greatness can be understood, insinuated or assumed, but not blatantly exposed. The paper, print and set up are first class, the illustrations moderate.

H.A.R.

The Common Infectious Diseases. By H. STANLEY BANKS. Arnold. *Price* 21*s.*

Dr. Banks needs no introduction to Guy's men of recent years; he has been their principal mentor on the subject of fevers and the Park Hospital has provided their background of clinical experience.

In this very readable book the systematic lectures delivered to students are preserved in illustrated and amplified form. Adequate references are also included.

As a text it represents one of the few really up-to-date accounts of this branch of medicine and should be read by every undergraduate engaged on the fever course. In addition, it will serve the practising physician as a source of modern knowledge on the infectious diseases and, at the same time, provide him with the latest ideas on both management and treatment.

Tuberculosis in the Commonwealth. N.A.P.T. *Price* 15*s.*

A complete account of the transactions of the Second Commonwealth and Empire Health and Tuberculosis Conference held in July, 1949 has been published in book form. Besides giving a vivid picture of the actual proceedings this volume incorporates a number of quite notable papers and contributions. What is more, any profits that may accrue from the sale of this book will go towards augmenting the funds needed by the National Association for the Prevention of Tuberculosis in the conduct of its campaign.

The Sexual Perversions and Abnormalities. By CLIFFORD ALLEN. 2nd Edition. Oxford: Geoffrey Cumberlege. *Price* 25*s.*

The main part of this book is taken up by an outline of the psychopathology of the abnormalities of sexual inclination. Dr. Allen concedes that the Freudian doctrine has brought about a fundamental change in the theory of sexuality, but he is critical of some psychoanalytic concepts and prefers where it is plausible a common-sense interpretation. The first section of the book is a review of instinctual development in the primates and man; the second, an account of the nature and causation of the sexual perversions (oralism, analism, sadism, etc.) and malversions (fetishism, impotence, frigidity, etc.); and the third, a dissertation on prevention and treatment, with a note on the forensic aspects of sexual offences. The book will have more value as a contribution to the theory of perversion than as a guide to its management.

D.O'N.

NOTE: A misunderstanding may have arisen from a review published in the *Gazette* of 14th January on "Medicine for Nurses" by W. Gordon Sears. The publishers write to explain that stocks are adequate and there is little likelihood of this book going out of print.

Sport

RUGBY FOOTBALL

Guy's *v.* Metropolitan Police

At H.O.P. Drew 8—8.
11th February, 1950.

The game was poor. The Guy's team was apathetic and lifeless ; and this was particularly noticeable amongst the forwards. The defence of the three-quarter line was sound and it was for this reason that a draw resulted.

The Police took the lead early on when the tackling of the Guy's forwards broke down and a try under the posts resulted. This was converted. Guy's levelled matters a few minutes later when Heber scored a grand try. The ball was rushed up the field by the forwards ; quickly heeled ; and away went the backs. Heber on the wing ran strongly and cut inside to score in the middle. D. le Clus converted.

After half time the Guy's forwards got worse if anything and were penned in their own half. The Police scored by a dropped goal ; and D. le Clus kicked a penalty goal.

Guy's *v.* Aberavon

At Aberavon. Lost 5—11.
18th February, 1950.

This game was a complete contrast to the match against the Metropolitan Police. The sides played hard open rugger and scoring chances abounded. The defence on both sides was excellent.

Guy's kicked off into a gentle breeze and at once Aberavon were on the attack. Some touch line work by F. le Clus moved the play back into the Aberavon half. The forwards rushed the ball up the field and were nearly there. Then came the first score—a grand try from Bellis. He received the ball in a ruck of players, shook off two defenders, and ran at tremendous pace for 25 yards. Davies converted. A moment later F. le Clus cut up the field, passed inside to Rademan, many more players handled and the move was stopped just before the Aberavon line was reached. It was a grand movement. Just before half time Aberavon scored an unconverted try. So to the second half with the Guy's hopes high that we might steal their ground record.

At once we met with a set back. Frank le Clus, who had played magnificently, injured his knee and retired from the game. He came back later but took no active part in the game and Guy's played with seven forwards until the end. Howells moved in to fly-half, Heber came in to the centre and Bellis went on the wing.

Robinson was still hooking beautifully and the seven forwards went harder than ever. Ten minutes went by and still Guy's led. The backs were constantly coping with extra men and the defence held good. And then the pace told, tries were scored for Aberavon by L. John and O'Sullivan, and Ross Richards converted one. It had been a grand game ; one that will be remembered by the players and spectators alike for a long time.

HOCKEY

Guy's *v.* United Services (Portsmouth)

At Portsmouth. Won 1—0.
18th February, 1950.

Guy's met U.S. Portsmouth on a heavy and somewhat bumpy pitch. Guy's quickly realised that the speed of the opposing forwards and their accurate passing promised the most strenuous game of the season. Guy's halves held the U.S. forwards, the mid-field play being punctuated by several sorties on the U.S. goal. Earl collecting a long pass from Hodson scored the only goal of the game. In spite of several attacks, Guy's failed to consolidate their lead. The second half saw some keen and rather robust play. U.S. pressed hard against the forcing Guy's team and but for Walker in goal and the final whistle must surely have scored the equalising goal.

Team : F. H. Walker; R. Park, H. Carter; C. Robinson, E. A. Murray (Capt.), R. Sandfield; D. V. Duckworth, D. E. Blake, S. Earl, C. H. Ppie, R. Hodson.

Other Results

Guy's II *v.* U.S. (Portsmouth). II Lost 4—5.

Guy's III *v.* Oxted. Lost 1—3.

Guy's IV *v.* N.P. Bank. Lost 1—5.

ASSOCIATION FOOTBALL

Guy's *v.* West Wickham

At West Wickham. Lost 1—4.
11th February, 1950.

Guy's visited West Wickham for the second Saturday in succession, but were unable to repeat their performance of the previous week when they drew, and were deservedly beaten. Playing with a much weakened side, they began well and at half-time were only 2—1 down, a goal by Bishop keeping the Hospital side in the hunt. However the second half told a different tale and bad marking by the defence allowed the home side to add two more goals.

Team : A. Fearn ; D. Matthews, D. Lipington ; D. Harris, D. Thompson, J. Wylie ; C. Peskett, E. Newton, M. Bishop, E. Sturdy, J. Bennett.

Guy's *v.* Bristol University

At Bristol. Lost 2—4.
15th February, 1950.

Guy's journeyed to Bristol to play the University. As Bristol are reckoned one of the strongest University sides in the country the final score in no way disgraced the Hospital.

Play opened with the Hospital side playing against a strong wind and it was only a resolute defence that kept Bristol at bay. However, after forty minutes, a Bristol forward eluded a tackle and shot a lovely goal just inside the upright. Not to be outdone however, Guy's quickly got on terms again when a cross by Cornhill was put to excellent use by Burns.

Guy's were quickly on the attack when play was resumed but rather against the run of play at that moment Bristol scored two quick goals. Sturdy however, put the Hospital in striking distance again with a brilliant solo effort that resulted in a goal.

Ten minutes from the end Bristol put the result beyond doubt. Fearn managed to push a cross shot against an upright, but a poor clearance by a defender went to one of the opposition who had little difficulty in placing the ball in the net.

The end of an enjoyable game came with no further score.

Team : A. Fearn ; M. Bishop, D. Lipington; A. Prince, P. Southgate, A. Swift ; B. Cornhill, C. Leckie E. Newton, E. Sturdy P. Burns.

BOXING

On Monday, February 20th, at Seymour Hall, the Hospital held its Annual Open Boxing Tournament. In the team match Guy's defeated the Metropolitan Police by five bouts to four. There was a good attendance and the Boxing Club are most grateful to the many members of the Staff who gave their support.

Mr. G. A. R. Winston, on behalf of the Tournament Committee, thanked the audience for their attendance and reminded them of the Inter-Hospitals Championships on the 22nd March to be held in the same hall.

Colonel E. G. Waley kindly presented the prizes as the boxers left the ringside.

SPECIAL TEAM MATCH

Guy's Hospital *v.* Metropolitan Police

A. N. Greenwood *v.* M. Batten

Greenwood has improved much since he boxed against the Royal Military Academy last month, and did not allow a taller opponent to disconcert him. By prolonged attack with heavy blows he forced Batten to retire in the third round.

D. Lipington *v.* P. C. Barrett (B Div.)

A bruise obtained during training handicapped our boxer and determined the power of his blows. Lipington's elusiveness and clever boxing were appreciated by the large crowd of spectators who seemed very disappointed when the decision went against the Hospital.

N. H. St. John *v.* P. C. Hartley (F. Div).

St. John, who was not boxing up to his usual form, tried in vain to land a knock-out punch on his opponent, who being a very strong and experienced boxer was able to counter punch with skill and gain the verdict.

T. M. Winstanley *v.* R. Brightwell

With supreme confidence Winstanley outboxed a stronger and more aggressive opponent, and succeeded in winning the bout on points. When he had knocked down his adversary in the 2nd round he might well have pressed home this advantage.

W. Watson *v.* R. Wiggins

From the beginning Watson attacked with two handed blows. This hard punching had the effect of forcing Wiggins to retire with a cut eye.

R. C. C. Thompson *v.* R. Garnett

A smaller, but more aggressive opponent, who was knocked down in the second round, managed to recover himself and fight back strongly to take the decision from Thompson.

W. M. Sheeran *v.* P.C. Macdonald (Z Div.)

After a disappointing first round, Sheeran dazed his opponent with a right hand counter and followed his advantage to the full with both right and left hands, forcing his opponent to retire before the end of the second round. This is another bout which shows how well the captain of the Club can alter his style to meet his opponent.

M. Bishop *v.* P.C. Matthews (Z Div.)

Using his right hand with effect, Bishop stopped his opponent in the second round. This is his first contest for the hospital, and he is to be congratulated on beating a more experienced boxer.

M. Halamandres *v.* E. Gee (B Div.)

A weight and height disadvantage emphasized by Gee's mauling tactics disconcerted Halamandres. This was a lively bout with hard hitting on both sides, but Gee succeeded in winning a very close contest.

We sympathise with B. Cremin, E. Sonnenfeld, A. H. Atkinson and D. Clarke, who were unfortunately unmatched.

Special Contests

C. F. Tucker won on points against B. Robson.
J. Byrne won on points against J. Weekly.
A. Santos won on points against E. Hennesey.
A. C. Mackie stopped M. McGrath in the second round.

Guy's Diary

February

ACADEMIC

Exhibition. Surgical Department. "Pott's Disease."

28th. 12.00. Mr. Warner. Dental Theatre. "The Maxillary Sinus in Dental Practice."
1.00. Dr. Baker. Clinical Lecture.

March

2nd. 4.30. X-Ray Meeting. Gordon Museum.
3rd. 2.15. Medical Department. Combined Round. Preclinical Classroom.
6th. 1.00. Dr. McKeith. Clinical Lecture. "Minor Maladies of the Nursling."
7th. 12.00. Medical Department. Neurological Demonstration. Preclinical Classroom.
5.15. Dental Society. Mr. Ashby. "Lichen Planus." Mr. D. R. Whittington "Dry Sockets." Dental Lecture Theatre.
8th. 4.45. Guy's Science Club. Mr. D. J. Anderson. "The Use of Electrical Strain Gauges in Physiological Research." Staff Common Room. (Tea 4.30.)
9th. 4.30. X-Ray Meeting. Gordon Museum.
10th. 1.00. Sir John Conybeare. Clinical Lecture. "Non-Purulent Pleural Effusions."
2.15. Medical Department. Combined Round. Preclinical Classroom.
11th. 10.00. Mr. Victor Dix, London Hospital. Surgical Departmental Round. Clinical Theatre.
13th. 1.00. Mr. Blaikley. Clinical Lecture.

March

SPORT

1st. Association Football XI *v.* Northampton Engineering College. (Away).
4th. Rugby XV. *v.* London Welsh. (Herne Hill).
Association Football 1st XI *v.* Irving Sports Strollers. (H.O.P.).
Association Football 2nd XI *v.* Ealing Association. (Away).
Hockey 1st XI *v.* Tonbridge. (H.O.P.).
Hockey 2nd XI *v.* Tonbridge. (Away).
Hockey 3rd XI *v.* Imperial College. (Away).
8th. Association Football. 2nd Round Hospitals' Cup. Guy's XI. *v.* Charing Cross or London Hospitals. (H.O.P.).
11th. Rugby XV *v.* Old Paulines. (Thames Ditton).
Association Football 1st XI *v.* Kew Association. (H.O.P.).
Association Football 2nd XI *v.* Royal Dental and Charing Cross Hospitals (Away).
Hockey 1st XI *v.* Selfridges. (Away).
Hockey 2nd XI *v.* Hays Wharf. (Away).
Hockey 3rd XI *v.* Imperial College. (H.O.P.).

House Appointments

1st MARCH, 1950

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger — Mr. R. H. R. White
„ Mr. Wass : — Mr. R. G. Beard.
„ Mr. Blackburn : — Mr. R. Goulding.
„ Mr. Lawrie : — Mr. K. F. Robinson.
„ Mr. Glover : — Mr. M. J. Hunter.

Appointed for six months, first three months as A.H.S.

OUT-PATIENT OFFICERS.

Mr. J. A. Loeb.
Mr. M. C. Gilbert.
Mr. F. G. Ellis.
Mr. J. Payne.
} 3 *months.*

HOUSE SURGEONS.

To Sir Heneage Ogilvie: Mr. C. J. G. Menzies. 3 *months.*
„ Mr. Massie : Mr. O. L. Thomas. 6 *months.*
„ Mr. Eckhoff : Mr. J. Crossley. 3 *months.*
„ Mr. Atkins : Mr. A. M. Platt. 3 *months.*

HOUSE PHYSICIANS.

To Sir John Conybeare and to Dr. Hardwick: Mr. W. J. C. Symonds. 6 *months.*
„ Dr. Boland and „ Dr. Baker : Mr. T. B. Brewin. Mr. G. W. Scott. 3 *months.*
„ Dr. Hampson and „ Dr. Kauntze : Mr. A. J. Salmon. Mr. I. E. Evans. 3 *months.*
„ Dr. Douthwaite and „ Dr. Mann : Mr. J. D. Morris. Mr. A. T. T. Forrester 6 *months.*

RESIDENT OBSTETRICIANS.

1.11.49—30. 4.50 : Mr. T. C. L. Parry*
1. 1.50—30. 6.50 : Mr. K. A. A. Campbell*
1. 3.50—31. 8.50 : Mr. J. M. Holmes.*
1. 5.50—31.10.50 : Mr. R. W. Hughes.*

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. J. G. Hamilton* 6 *months.*

OPHTHALMIC HOUSE SURGEON.

Mr. H. L. Backhouse.* 3 *months.*

CHILDREN'S HOUSE PHYSICIANS.

Mr. R. G. Nicholson. 3 *months.*
Mr. T. E. Oppe.* 6 *months.*

THROAT AND EAR HOUSE SURGEON.

Mr. D. L. Blundstone. 3 *months.*

RESIDENT JUNIOR CLINICAL PATHOLOGISTS.

1.3.50—31.8.50 : Mr. P. B. Poole.
1.4.50—30.9.50 : Mr. D. F. Brunsdon.*

DERMATOLOGICAL HOUSE PHYSICIAN.

Mr. O. F. Conran. 3 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. E. J. McGuire 3 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. R. McL. Brown. 3 *months*

ORPINGTON : ORTHOPAEDIC HOUSE SURGEON.

Mr. B. G. B. Christie 3 *months.*

GENERAL HOUSE SURGEON.

Mr. H. A. Hurwood. 3 *months.*

EAR, NOSE AND THROAT HOUSE SURGEON.

Mr. M. C. H. Jackson. 3 *months.*

SOUTHERN : ORTHOPÆDIC HOUSE SURGEON.

Mr. M. Mason.

PEMBURY : HOUSE SURGEON.

Mr. P Buri.

JOYCE GREEN : HOUSE SURGEON.

Mr. S. A. Jolliffe.

HOUSE PHYSICIAN BEGINNING. APRIL 5th, 1950.

Mr. J. Spencer Jones.

(**Ex-Service Medical Officer.*)

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the appointment of **Registrar (part-time) to the Orthopædic Department** with attendance on five sessions a week. Appointment to date from 11th March to 30th September, 1950, in the first instance. Forms of application obtainable from the Medical School Office and should be lodged with the Dean not later than 3rd March 1950.

Applications are invited for the appointment of **Registrar to the Pædiatric Department.** Applicants should hold a higher qualification and the appointment will date from the 1st June to 30th September, 1950, in the first instance. Salary £775 per annum. Forms of application obtainable from the Medical School Office and should be lodged with the Dean not later than 3rd March, 1950.

Applications are invited for the appointment of **Medical Registrar.** Appointment to date from 1st April to 30th September, 1950, in the first instance. Salary £775 per annum. Forms of application obtainable from the Medical School Office and should be lodged with the Dean not later than 3rd March, 1950.

GUY'S HOSPITAL DENTAL SCHOOL ANNUAL CLINICAL MEETING 4th MARCH, 1950.

Demonstrations will be shown on COLOUR TELEVISION, First Floor of the Old Pathology Building (behind Dental School) during the morning and afternoon.

Admission to all Television Demonstrations will be by ticket ONLY. Tickets will be issued on the day of the Clinical Meeting at 10 a.m. for the morning demonstrations and at 1.30 p.m. for the afternoon demonstrations. Tickets will be issued from the desk in the Waiting Room, Ground Floor, Dental Department.

PASS LIST

ROYAL COLLEGE OF SURGEONS

F.R.C.S.

Primary Examination.

P. Buri — J. R. Dickson
J. Candy — J. F. Shaw

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION.
January, 1950.

Pathology, Bacteriology and Forensic Medicine.

P. A. Van der Merwe.

Midwifery.

H. C. Killey — N. L. Rowe
C. R. Lynn

PAPERS BY GUY'S MEN

Andy, J. R. Occurrence of Trombiculid Mites on Arthropods. *Nature*, 1950, **165**, 193

Andy, J. R. Practical Notes on Scrub Typhus in the Field. *J. Roy. Army Med. Corps.*, 1949, **93**, 273.

Barber, H. W. Psoriasis. *Brit. Med. J.*, 1950, i, 219.

Bishop, P. M. F. The History of the Discovery of Addison's Disease. *Proc. Roy. Soc. Med.*, 1950, **43**, 35.

Campbell, A. M. G. and others. Canicola Fever in Bristol. *Brit. Med. J.*, 1950, i, 336.

Gill-Carey, E. Refresher Courses for General Practitioners. Acute and Chronic Sinusitis. *Brit. Med. J.*, 1950, i, 427.

Layton, T. B. Tonsils and Adenoids. *Med. World*, 1950, **71**, 774.

Layton, T. B. Acute Otitis Media with Discharge: Controlling the Patient's Hair. *Nursing Times*, 1950, (Feb. 11th) 140.

Pilbeam, J. F. Dental Auxillary Workers. *Public Health*, 1950, **63**, 81.

Stout, T. D. M. The Recruit—His Selection and Training. *New Zealand Med. J.*, 1949, **48**, 556.

Thorne, T. C. Caudal Anæsthesia *Brit. Med. J.*, 1950, i, 414.

Warner, E. C. Refresher Course for General Practitioners. The Influenzal Diseases. *Brit. Med. J.*, 1950, i, 296.

MEDICAL FILM MAKERS

A film-show discussion for makers of medical films will be held by the Medicine Committee of the Scientific Films Association at Guy's Hospital on the third Wednesday of February, March, April and May from 6 p.m. to 8 p.m. Tickets may be had from the Association 4 Great Russell Street, London, W.C.1.

BIRTHS

GOULDER.—On February 5th, 1950, at the Hitchin Maternity Unit, to Margaret (née Oliver) wife of Dr. R. V. H. Goulder.—a daughter, sister for Nicholas and Margaret.

MORGAN.—On February 6th, 1950, at Edenbridge, to Mary Grace (née Harvey) wife of Dr. C. R. Morgan—a daughter (Penelope, Ann).

JAMESON TILL.—On February 7th, 1950, at Nuffield House, to Margaret (née Crust) wife of Lt.-Col. S. Jameson Till, M.C.—a son, brother to Michael and Susan.

RUSHFORTH.—On February 13th, 1950, at Guy's Hospital, to Kitty (née Alkin) wife of Arthur F. Rushforth,—the gift of a son (Keith) and brother for Graham and Mary.

DEATHS

ATKINSON.—During May, 1949, Audrey C. Atkinsin, S.R.N. (nee Cooper) wife of Alan Atkinson, M.R.C.S., L.R.C.P.

EDS. {R.G. P.A.Z.

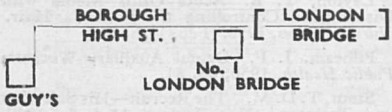
Pickfords & Hay's Wharf
SHIPPING & FORWARDING CO., LTD.
PROVIDE A

COMPLETE TRAVEL SERVICE

AT

No. 1, LONDON BRIDGE
HOP 7101

ONLY 2½ MINUTES AWAY



TRAVEL AND TOURS
BY LAND, SEA AND AIR
(NO BOOKING FEE)

RAYNER

NARROW BEAM OPHTHALMOSCOPE
Designed for ease of observation
£8 8s. 0d.

PRISM AURISCOPE
all the light from the ophthalmoscope type lamp bulb concentrated in the aperture of the speculum
£7 0s. 0d.

COMBINED OPHTHALMOSCOPE AND AURISCOPE
£12 0s. 0d.

100 New Bond Street W.1.

B&M
The Smoker's Match

SWAN VESTAS

BRITISH MADE
BY
BRYANT & MAY

SANTRON the New Germicide

- **Gynæcology and Midwifery** — Contains a higher percentage of pure potash castor oil soap, and differs from most germicides in that an additional soap solution is not required when used in Gynæcology and Midwifery. It is clean and pleasant in application, and is safe in undiluted form.
- **For Hospitals** — Santron is being used extensively by many General and Women's Hospitals, Public Institutions and Factories throughout the Country. Doctors too have proved its merits in private practice.
- **In General Practice** — Santron is available to the Public through Chemists, and may be indicated for all purposes of personal hygiene including gargling, as a deodorant, and general disinfecting of sick rooms, and treatment of clothes.
- **In the Home**

Santron is manufactured solely by Rendells, a name known to the Medical Profession throughout the World for 50 years. Like all other Rendells Products it is made under the same scrupulous conditions and control of an independent Medical Board. Full Medical literature and samples supplied on application.

W. J. RENDELL LTD.
161/165, ROSEBERY AV., LONDON, E.C.1

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1608 *11th March 1950* *Ninepence*

PASSIM

There are " boffins " and rebels and sceptics. A " boffin " in case you do not know is a sort of super pundit. The word originated in the R.A.F. It was used to describe the seedy gentleman who came from nowhere in the rain. He would arrive at an aerodrome on foot dressed in a scruffy old mackintosh and on admitting his name would turn out to be the worlds greatest authority on 'something-or-other' (Radar, for instance). His technical language was so abstruse that no one knew what he was talking about when he talked about it—hence the respect paid him by senior officers with 'brass' on their hats.

Medicine has its " boffins "—its workers who live in a world of their own, a world the rare atmosphere of which would asphyxiate you or me. Such folk are usually completely absorbed in their own researches. They work endlessly. They produce tremendous results. Medicine however has two other sorts of workers who produce big results. Rebels and sceptics. And whereas " boffins " are regarded affectionately—like pets—rebels and sceptics are not ! No one likes them. Rebels are usually regarded with suspicion, so that if someone doesn't keep an eye on them they will upset everything. Sceptics are thought to be just a little too clever. And yet in time past these scientific heretics have made some of the greatest advances in medicine.

It is our belief that one function of a big Hospital is to provide a medium in which all men may use their brains and skill for the good of mankind—however odd their brains, however unorthodox their skill. Hospitals however are naturally conservative. They have strong traditions and where tradition is strong, change is sometimes eyed askance. There have, let it be said, been many innovations and many advances at Guy's this past decade. The truth remains however that whilst Guy's may remain, if she chooses, a stronghold of tradition, tradition must never gain a stranglehold. The safest guarantee that this shall not happen will be the presence of a few men, unorthodox, original, sceptical and rebelious in both high positions and the humble ones. So secure a place as Guy's can easily contain them and will surely benefit from their originality. We must make room not only for the " boffin " but for the sceptic and the rebel too.

We record with deep regret the death of Professor John Ryle, an obituary notice of whom will be found on another page. His qualities as a Physician and his character as a man made him widely known and greatly beloved. His death will be felt by all those who came into contact with him both personally and through his writings. It was only a few months ago that he promised to contribute an article on " Research in General Practice " to the *Gazette* (of which he was a former editor). That this will never appear now is all our misfortunes.

There are not so many men of whom it can be said that Guy's owes them so great a deal. John Ryle, however, is one of them. We can indeed raise no better memorial to him nor better repay our debt than by following those principles of medicine which he set down so beautifully in the pages of his book—"The Natural History of Disease."

By his own particular request, made shortly before he died, there will be no memorial service.

In our correspondence columns this week will be found an appeal for a Guy's doctor and nurses to undertake some work in the Sudan, to help towards lessening the infant mortality there. Appeals of many kinds come into the *Gazette* office. It is seldom we receive one towards which we feel so much that it would be a privilege for Guy's to answer it and a sorry reflection upon us not to do so. The work referred to will be watched by more than government officials of the Sudan. It will be humanitarian work of the first importance. There must be few situations in which so much good could be done so comparatively easily. It would be a splendid thing if this piece of pioneer work were to be carried out by Guy's people. The conditions of service, both social and financial, will be good.

There was a fire in Hunt's House on Monday night. Part of the top was damaged but at no time were any patients endangered. Occuring after we had gone to press space forbids further comment in this issue.

The United Hospitals Amateur Boxing Club are holding the Inter-Hospitals Boxing Championships at the Seymour Hall on Wednesday, 22nd March, at 7.15. Tickets may be obtained from the Secretary, United Hospitals Boxing Club, Guy's Hospital Medical School, S.E.1. We hope very much that the Championship will meet with the same support given recently to the Guy's *v.* Metropolitan Police Boxing Match and which made it such a success.

BIENNIAL DINNER

The Biennial Dinner will be held at the Connaught Rooms on Friday, 6th October, next. Further details will be published lat r.

Guy's Diary

ACADEMIC

March		
13th.	1.00.	Mr. Blaikley. Clinical Lecture. "Treatment of Prolapse." (With Film).
14th.	1.00.	Dr. Bishop. Clinical Lecture. "Disorders of Sex."
16th.	4.30.	X-ray Meeting. Gordon Museum.
17th.	1.00.	Dr. Douthwaite. Clinical Lecture.
	2.15.	Medical Department. Clinico-Pathological Meeting. Pathology Lecture Theatre.
20th.	12.00.	Mr. H. H. Kenshole. Dental Clinical Lecture. "Contact Points." Dental Theatre.
	1.00.	Mr. Kilpatrick. Clinical Lecture. "Urolithiasis."
21st.	12.00.	Medical Department. Neurological Demonstration. Pre-Clinical Classroom.
	1.00.	Mr. Blackburn. Clinical Lecture. "Thyrotoxicosis."
	5.15.	Dental Society. Film—"Some Cases of Clinical Interest." Dental Lecture Theatre.
23rd.	1.00.	Mr. Eckhoff. Clinical Lecture. "Congenital Deformities."
	4.30.	X-ray Meeting. Gordon Museum.
24th.	1.00.	Dr. Hampson. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.
25th.	10.00.	Surgical Department. Clinico-Pathological Meeting. Anatomy Theatre.
27th.	1.00.	Dr. Harris. Clinical Lecture.

SPORT

March	
15th.	Association Football. Semi-Final Hospital Cup.
18th.	Rugby XV *v.* Gloucester. (H.O.P.).
	Rugby. England *v.* Scotland. (Murrayfield).
	Association Football 1st XI *v.* Northampton Engineering College. (H.O.P.)
	Association Football 2nd XI *v.* National Bank of India.
	Hockey 1st XI *v.* Ealing Dean. (H.O.P.).
	Hockey 2nd XI *v.* Tregothnan. (Away).
	Hockey 3rd. XI *v.* Ealing Dean. (Away).
22nd.	Association Football. Guy's *v.* Goldsmith's College. (H.O.P.).
25th.	Rugby XV *v.* Llanelly. (Llanelly).
	Association Football 1st. XI *v.* Ibis. (H.O.P).
	Association Football 2nd XI *v.* Ibis. Away).
	Hockey 1st XI *v.* Rochester and Gillingham. (Away).
	Hockey 2nd XI *v.* Rochester and Gillingham. (H.O.P.).
	Hockey 3rd XI *v.* Rochester and Gillingham. (Away).

Obituary

JOHN ALFRED RYLE, M.D., F.R.C.P.

JOHN RYLE, born in 1889, the son of R. J. Ryle, M.D., of Brighton, entered Guy's from Brighton College in 1907, obtained the Treasurer's Gold Medal for Clinical Medicine in 1912, qualified in the following year and just had time to complete his appointment as house physician to Dr. Fawcett before the first war. He at once joined the R.A.M.C. and served in France and Belgium till he was demobilised in 1919. During the earlier years of the war at a Casualty Clearing Station he established a reputation as a physician which was remarkable for a man of his age and lacking at that time the M.R.C.P. Officers from Units not ordinarily served by his C.C.S. would seek the advice of the young doctor whose wisdom, humanity and personal charm inspired trust and affection. Feeling, however, that he should be nearer the line he succeeded eventually in having himself transferred to a Field Ambulance.

On his return to Guy's he was appointed Medical Registrar and in the following year Assistant Physician, having in the meantime won the University Gold Medal in the M.D. Examination. This was the beginning of fifteen years devoted to teaching and consulting practice. As a clinical teacher he excelled. Together with remarkable powers of observation and interpretation he had a gift for expounding the natural history of disease which was extraordinarily attractive to the student. In his practice the qualities which had already shown themselves in the Army made his opinion within a few years more sought after than any physician of his own age, and before he retired the demands upon his time were far in excess of what was available. Other consultants—physicians, surgeons and specialists in every branch—turned to him again and again for the final opinion in a difficult case, not just because he was wise, kind and wholly honest, but because his grasp of the essentials in any field of medicine and surgery enabled him to give due weight to all the evidence, and pronounce a balanced judgement.

His sense of duty made it impossible for him to resist appeals for help with urgent problems, and the strain thus imposed was so great that when offered the appointment of Regius Professor of Physic at Cambridge in 1935 he accepted, hoping to find opportunities for post-graduate teaching and research with leisure for thought. In the next four years he collected around him at Addenbrooke's a group of young men whose work showed great promise, and meanwhile had not been idle with his own pen.

The war suddenly brought this work to an end and in 1939 he joined the Emergency Medical Service, becoming later one of its consultant advisers and returning at his own wish to live in the Borough and share with its inhabitants, whom he had served and loved in his earlier days, the hazards and tribulations of the first half of the war. Then began the illness which was to end his life. Only those very near to him were aware of the angina from which he constantly suffered in the remaining years, for this handicap he accepted with characteristic quiet and fortitude.

His appointment in 1943 to the newly instituted Chair of Social Medicine at Oxford gave him work within his physical compass and opportunity for the development of ideas which had much engaged his thought. He was convinced that the time had come for a change in the outlook of medicine and that the study of symptoms and signs, however necessary, was less important, that the understanding of the causes of disease, especially those arising from the social environment. If these were understood much illness might be prevented. His clinical experience and judgment were now of the greatest value to him and his colleagues, and in the years that followed he laid the foundations at Oxford of a great work. During this period he was able to go to

JOHN RYLE

India as a member of a visiting group of experts to advise the Health Survey and Development Committee of the Government, and to lecture in the United States, Canada and South Africa by invitation of the authorities in these countries. The knowledge that his days were numbered did not for a moment distract his attention or impair his capacity for giving happily of his best during this last phase. In the summer of 1949 a second coronary thrombosis compelled him to resign from the Oxford Chair and on February 27th, 1950, he died in a further attack.

His contributions to medical literature were many and covered a wide field, their style classical and their form shaped by the mind of a philosopher. His essay on "The Physician as Naturalist," is as good as anything that has ever been written in this vein. He published several books, of which "The Natural History of Disease" and "Changing Disciplines," best reveal the growth of his mind. He was elected Goulstonian Lecturer of the Royal College of Physicians in 1925 and Croonian Lecturer in 1939. served on several Committees of national importance and was a member of the Medical Research Council. He was appointed extra Physician to His Majesty the King in 1935, and was made Honorary Doctor of Science by McGill University in 1947.

Outside medicine his interests were in the country. He was a man of simple tastes who enjoyed nothing better than walking in the lanes or on the hills with his family and friends, and was a keen student of birds and their habits. He married in 1914, Miriam Power Scully who survives him with three sons and two daughters. In 1928 he and his wife obtained the lease of an old farmhouse in Sussex which was their holiday home till 1949. Many Guy's men will remember the warmth of their welcome at Glatting, and happy, friendly days among the folds of the downs. Last autumn they moved to a little house they had built for themselves in the neighbouring village of Sutton, and there, looking out onto the hills and watching the birds at his window, John Ryle ended his days.

He was truly a remarkable man, in his presence distinguished, in his manner kindly, in his heart pure and in his spirit great. But there was something more than this, some indefinable quality, endearing and sublime, which raised him above the stature of ordinary men. Guy's will ever be proud of him for what he did and what he was.

C.P.S.

Correspondence

A Doctor for Pioneer Work.

SIR,—There is an infant-mortality of 50 to 60% in the Southern Sudan, a land where, unlike many other places, the country is underpopulated. The Save the Children's Fund intends to send a team of one doctor (male or female) and two nurses this May to carry out child-welfare work and research into the causes of this high death-rate. The General Secretary of the Fund, 20 Gordon Square, W.C.1., will supply further particulars and would be glad to receive applications from any Guy's men or women willing to undertake this valuable pioneer work.

Yours, etc.,

LESLIE HOUSDEN.

Mulberry Hill,
Baghurst, Hants.

"A" Bomb Burns*

By PATRICK CLARKSON.

1. General.
2. Some Relevant Nuclear Physics.
3. Pattern of Disaster.
4. Acute Difuse Ionising Radiation Illness.
5. Local Radiation Burns.
6. Some Photos Indicating Modern Treatments of Thermal Burns, Including Burns with Fractures, and Keloids.
7. Recent Work in Burn Problems.
8. Conclusion.†

1. General.

1. Choice of subject.
2. Revelance of subject whether war or not, e.g. sewage of fission products use of radio active isotopes, cyclotrons, and accidents in x-ray therapy and diagnosis.
3. Present position re security and classified information.

MR. CHAIRMAN AND GENTLEMEN,—When your secretary did me the honour, last autumn, of suggesting that I open a discussion at one of your meetings I was a little at a loss to know what aspect of plastic surgery would be most suitable for a discussion in this Club. It seemed to me that "Burns" might fit the bill very well, and that of the various types of burn those due to ionising radiation are possibly both the most suitable as well as the most topical. Local radiation burns have too always formed an important proportion of the plastic surgeons most difficult problems:

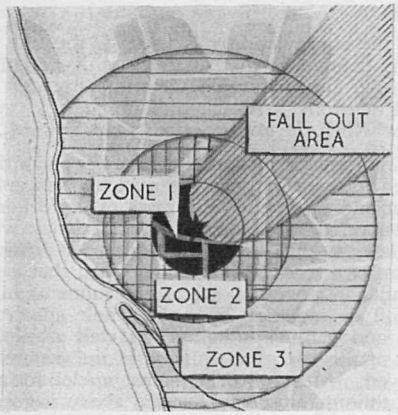
A great deal has been written on the subject of ionising radiation effects in the American medical press during the last four years; relatively little has yet appeared in our own medical press on this subject. It is probably fair to say that because of this, the Canadian and American medical public as a whole, are more aware of current views on these problems than we are.

It must be emphasised that the subject is one of growing importance in the age in which we live, whether or not another A bomb is ever exploded, for there are potential radiation hazards in an increasing variety of human activities. There are the hazards of manufacture and extraction of fissionable material, the risk of contamination by sewage of fission products, risks in the handling of radio active isotopes in medical work, risks when working with cyclotrons, as well as accidents in x-ray therapy and diagnosis. All these activities can provide examples of local and of diffuse ionising radiation effects. Indeed the first biological effects of ionising radiation were an accidental local burn on the chest which occurred underneath the breastpocket of Von Becquerel, when he put a tube of inadequately protected radium into it. This happened in 1901, and since that date experience of these effects has been growing with increasing rapidity. Most of the biological effects of radiation were well known by 10 years ago, and were described by Ellinger in "Biological Effects of Radiation," 1941. But some of what was already known came to be considered "classified" after A bombs were exploded in Japan. Security precautions about this improtant subject can only be described as reasonable; so too can the recent changes that have been made whereby most of what we know, both from clinical and experimental sources here and in America, together with Japanese experience, has become available for general publication. But I do not know if all recent experimental work bearing on therapy is yet

*A discussion at the Science Club, Guy's Hospital, 8th February, 1950, opened by Patrick Clarkson, F.R.C.S. Chairman: G. F. Carter Braine, Esq., M.D., F.R.C.S., Director Radiotherapeutic Dept., Guy's

†Not read at the Meeting.

so available. I am attempting here only the briefest survey of the subject, and hope that the headings of the paragraphs under which my material is presented will serve for more authoritive comment from others during the course of discussion.



ZONE 1 receives 1,000 to 1,500r of radiation less a temperature of up to 4,000°C and blast wave of 800 m.p.h.

ZONE 2 receives 600 to 1,000r; the temperature may reach 1,000°C. It extends 1,000 yards beyond Zone 1.

ZONE 3 receives 150 to 600r; has a transient temperature of up to 400°C and a blast wave of 70 m.p.h. It extends 2,000 yards beyond Zone 2.

"Fall out area" is the Zone of scatter of fission products and is determined by prevailing weather.

Adapted for diagram in "Medical Aspects of Atomic Warfare."

2. Some Relevant Physics of Nuclear Fission.

1. Atom and Nucleus.
2. Ionisation. The Roentgen Unit.
3. Ionisation Radiation: Alpha, Beta, and Neutron particles, Gamma radiations.
4. Nuclear Fission.
5. Nuclear Fusion.
6. What happens when an A bomb explodes.

I approach with great diffidence this paragraph but with the reassurance that nobody in this audience will be deceived by any error of fact or inference which I may make on this aspect of my subject.

The atom, of course, consists of a positively charged nucleus with negatively charged electrons revolving around it in prescribed orbits. The nucleus is about 2000 times the mass of electrons. It comprises neutrons with no charge, and protons with positive charges which equal the negative charges of the electrons. Neutrons and protons are bound together by the nuclear force.

Ionisation is the essential effect produced by radiation of body atoms; it is described as the "knocking off" from an atom of an electron revolving in one of the outer orbits about the nucleus. The atom is then minus one negative charge, is therefore positively charged, and said to be ionised. This "knocking off" of an electron may be accomplished by alpha, beta particles, gamma rays or neutrons. Let us consider what these are. The alpha particle is a helium nucleus (each particle is made up of 2 neutrons and 2 protons). It has low penetrability—up to .1 mm. of tissue. Protection against alpha particles is afforded by a few sheets of paper. But they are highly ionising; 100 times as much as a beta particle and 10,000 as a gamma ray. Alpha particles are therefore most dangerous when maintained in contact with tissues, as when they are deposited in bone marrow. A Beta particle is an electron, moving at almost the speed of light. It can penetrate 5-10 mm. of tissue. Protection is afforded by a few mm. of aluminium. Gamma rays are for practical purposes the same as x-rays. When a nucleus suffers a collision with an electron or a neutron it becomes agitated and releases this extra energy as gamma radiation before returning to its normal unexcited state. The wave length of gamma rays and their energy depend upon their source. Hard x-rays such as those

emitted from high voltage sources and those in nuclear fission have high penetrability. Many inches of lead or many feet of concrete may be needed for protection. Neutrons are released by fission, or by fusion of nuclei. They have high penetrability. Some feet of lead or many feet of cencrete may be needed for protection. It is these neutron particles which have the property of rendering other atoms radio-active.

The Roentgen Unit (for which the abbreviation r is used) is the unit of measurement for X radiation. It is defined as that quantity of X-radiation which passing through 1 cc. of normal air produces 1 electric static unit of ions. For alpha, beta particles and neutrons, a similar measurement is used, the Roentgen equivalent physical (for which the abbreviations r.e.p. is used).

Certain heavy metals such as Uranium 235 have the property of splitting their nuclei when a neutron is added to them. When the nucleus is so split, the mass of the two halves does not add up to the total mass of the origina nucleus. This loss of mass is converted into energy in accordance with Einstein's mass-energy equivalence law, by the equation E equals MC^2 (when C is the velocity of light, 186,000 miles a second). It can be seen that a relatively small decrease in mass results in liberation of an enormous amount of energy. This energy is given off as radiation over the whole spectrum (infra-red, heat light, ultra violet, and gamma radiation) as well as alpha, beta particles and neutrons. Most of the energy is emitted at the instant of fission. A small proportion is delayed. Most of the smaller nuclei formed by the splitting of uranium, or of plutonium, are unstable radio active isotopes. emitting alpha and beta particles and gamma rays. They do this because the nuclei of these radio active isotopes suffer from neutron excesses, or proton deficits. The neutron excesses are got rid of by emission of beta particles. The fission products therefore undergo a number of " beta decays " before becoming stable atoms. While doing this they emit penetrating gamma rays as well as beta particles. Their " half-lives " (the average value for the the time during which 50% of the atoms decay) vary from seconds to many years according to the element and isotope concerned. It is these fission products which can cause radiation effects after the initial emission of radiation and particles at the time of an A bomb explosion.

Fig. 1.—A-BOMB BURNS. This photo shows the pattern effect on the skin produced by the protection dark clothing affords from the primary rectilineal rays of the A-bomb. Case from Zone 3.

When one atom of U235 splits on being hit by one neutron it does so with the emission of two other neutrons. The reaction is therefore potentially self-supporting, provided that enough atoms can be split at a time to ensure that, allowing for loss of neutrons into surrounding space, sufficient are still absorbed into the uranium mass to result in the splitting of further atoms The mass of uranium of sufficient size to ensure this reabsorption of sufficient neutrons to maintain the reaction is called " critical." A mass of uranium which is too small to ensure the reabsorption of enough neutrons to split further atoms is described as sub-critical. The Smyth report suggest that the critical mass is somewhere between 2 to 100 kilograms. To effect an A bomb explosion two sub-critical masses must be brought together at the right time, and place, and maintained in contact long enough for fission of sufficient nuclei to release the desired amount of energy. In the bomb at Hiroshima there was about 20,000 tons HE equivilant, at Nagasaki about double this.

The fusion of hydrogen atoms resembles the fission of uranium and plutonium in that the mass of the new nucleus formed by the fusion of the two lighter nuclei does not equal the combined weights of the original nuclei. This loss of mass is again expressed as energy $E = MC^2$, in accordance with Einstein's law. The energy is given off as radation or gamma rays, ultra violet, light, infra red, heat, and alpha, beta and neutron particles. Heavy hydrogen whose nucleus is one proton and one neutron, when fused with another deuterium nucleus forms a helium nucleus that weighs less that two heavy hydrogen nuclei. It was long known that nuclear fusion of this sort came about in the very high temperatures which are present in the sun, say 1,000,000C and over. Nuclear fission in an A bomb explosion gave man an agent for producing such temperatures, hence of nuclear fusion and making the H bomb. In the chain of fusion of hydrogen nuclei into helium nuclei, tritium, a radio active isotope of hydrogen, and lithium can probably be used to promote the reaction (lithium hydride contains both these substances). Mass for mass, material undergoing nuclear fusion emits seven times the energy of material undergoing nuclear fission. The size of the nuclear fission bomb is limited by the size of the critical mass (unless the technical difficulties of bringing more than two sub-critical masses together have now been overcome). There is theoretically no limit to the size of the fusion or H bomb. But it would be ballistically inefficient to make it too big. Two 20,000 ton HE equivalent at separate points on a city, do more damage than one 40,000 ton HE equivalent at one point.

Whether the A bomb is the result of nuclear fission or nuclear fusion its explosion provides an enormous and immensely rapid outburst of energy in the form of heat, infra red, light ultra violet, gamma radiation, alpha and beta particles and neutrons, plus the formation of highly radio active isotopes which undergo a series of beta decays, lasting from seconds to years before they reach stability.

3. Pattern of Disaster.

Three Main Patterns—

1. Above Ground Explosion, e.g. Hiroshima and Nagaski, Alomogordo, Bikini Operation Crossroads Test Able.
2. Surface Explosion, e.g. none yet (but Alomogordo only 100 ft. above ground).
3. Underwater Explosion, e.g. Bikini Operation Crossroads Test Baker.

Three Chief Effects—

1. Radiation Effects.
2. Thermal Effects.
3. Blast Effects.

" Pattern of Disaster." This is the term Professor E. Churchill has used to indicate how the type and incidence of casualty, as well as facilities, equipment, accommodation and personnel available, all exercise a very material influence upon treatment. It is obviously one treatment problem when a child is burnt within a mile of a teaching hospital in peacetime, but quite a different affair if the child is admitted as one of several hundred casualties in bombardment conditions. What was considered theoretically desirable

in the primary operative treatment of most missile wounds did not change much during the course of the recent war; but the picture of operative treatment of casualties seen in say the retreat during the first French-Belgian campaign, and that seen in a victorious set battle like Casino differed greatly; such is the effect of " pattern " on treatment.

As far as we know* all explosions so far with the exception of the Bikini Operation Crossroads Test Baker, have been above ground explosions.

There are three main effects :

1. RADIATION EFFECTS : by alpha, beta, neutron particles, gamma radiations.
2. THERMAL EFFECTS : (including ultra violet): Direct by rectilineal rays : Indirect by fires.
3. BLAST EFFECT : Direct (note, only 1% of survivors showed ruptured ear drums): Indirect by flying glass, masonry, etc.

I will not comment at length on ground level and underwater explosions. But the effect and risk of serious contamination by fission products is greatest in these types of explosions. If, after an underwater explosion, a great column of water descends on ships and neighbouring lands its sodium salts will have been rendered radio active. The half life of radio active sodium is 14 hours. The water is therefore a danger as a potential source of radiation for three to four days. Ground level explosions can also result in similar contamination by radio active isotopes of varying half lives.

It is convenient to describe all the effects of above ground explosions as affecting three main zones. The distances and figures for these zones quoted in different publications vary, and it is clear that the effects will vary greatly too—in accordance with height of explosion, with type of ground, size of bomb and type of building predominant in the city and weather. In this account I have made zone1 extend for 1,000 yards from the hypocentre of a bomb exploded at 15,000 feet; Zone 2 extends for 1,000 yards beyond Zone 1; and Zone 3 extends for 2,000 yards beyond Zone 2. But it is obvious that these figures and those for rontgens, temperatures and wind pressures are the merest approximations. Nevertheless the general concept of three main effects occuring in three main degrees in accordance with distance from the hypocentre is a useful one.

*Fig. 2.—A-BOMB BURN. Fatal burn casualty from A bomb in Japan. These extensive burns of the trunk and limbs in the man are almost certainly thermal, although he may also have suffered from diffuse ionising radiation effects. His trunks have protected the skin under them. Clothing would afford no protection to gamma radiation. Thermal burns of this extent are not incompatible with life given full prompt treatment.

With acknowledgements to the American Journal of Pathology, Vol. XXV, N. 5., " Pathology of Atom Bomb Casualties " by Liebow, Shields Warren and de Coursey.

*Details of the Russian explosion are still "classified" as far as we are concerned.

RADIATION EFFECTS. The dose of radiation over Zone 1 is well beyond the lethal dose. It is of the order or 1500r or more. This radiation is by high penetrating gamma rays and by neutrons. Only those 20-30 feet below concrete or wet earth will survive. The whole of Zone 2 has a potentially lethal dose—somewhere between 600 and 1000r. In Zone 3 the dose is somewhere about 150 to 600r—fatal for some people. This radiation dosage applies to people in the open. Cover of any sort will provide varying degrees of protection. For high energy gamma rays to burn skin 1000r to 2000r must be given. People therefore who have sufficient gamma radiation to burn skin are certain to have had enough diffuse to determine in fatal result later.

Primary radiation skin burns are not expected to be common in survivors. They might be on ships, where high energy gamma radiation has been " softened " by bouncing around bulwarks before effecting the personnel. 200r to 400r of such " softened " rays might burn skin and might not produce a fatal diffuse ionising effect. In addition to the primary emission of radion and particles there is the possibility of secondary radiation effects occurring from fission products. It should however be noted that no adverse effects have been recorded in those who entered the bombed area at Nagasaki and Hiroshima directly the area was clear after the explosion. Most of these products are dissipated in the " mushroom " cloud over very wide areas.

THERMAL EFFECTS. Intense heat is generated in the region of the hypocentre. Perhaps over 1,000,000°C within the " mushroom " and up to 4,000°C on the ground below. There would be no survivors except those protected by heavy screenage at a depth. In Zone 2 heat and ultra violet are propagated in rectilineal rays. The temperature can reach 1000°C, as evidenced by pitting in granite. Temperatures in Zone 3 can be of 3 to 400°C but would fall rapidly towards the periphery. These temperatures in Zones 2, 3 and beyond, are very transient. In Zone 1 secondary heat from the fire in the " mushroom " will last longer. In all Zones secondary fires will occur. In Zone 3 the rectilineal rays can cause both epidermal burns and very superficial effects which can be likened to sunburn. Clothing, particularly dark clothing, affords protection. In addition to direct thermal effects there are the secondary fires. These can provide in wooden cities, large numbers of serious casualties, of types comparable to cases seen individually in civil life, or in the recent war (and of which photos are shown to illustrate points in treatment).

BLAST EFFECTS. Almost total destruction of stone and brick buildings takes place in Zone 1, where the pressure wave travels at 800 m.p.h. In Zone 2 brick and wooden buildings would be destroyed, while in Zone 3, where the positive wave is 70 m.p.h., only frame buildings would suffer damage. These blast effects are primary and secondary. The secondary effects would be from flying debris, flying masonry and glass, etc. It should be noted that the effects of direct blast (as assessed by the incidence of ruptured ear drums) were slight in survivors in Zones 2 and 3. Less than 1+ are reported to have had ear drum ruptures.

In most industrial European cities about 5-8,000 people might be expected to be in Zone 1, and would perish from a multiplicity of causes. The few chance survivors would be " living on borrowed time." Any chance survivors would die within the course of about 6 to 30 days, from the late effects of diffuse ionising radiation. There would be survivors in Zone 2, although any in the open would receive a lethal dose of radiation. Zone 3 would provide the majority of survivors and most of them would be expected to need some sort of treatment. The population at risk of injury could be about 200,000 ; and there would be additions from those beyond 4,000 yards. When considering the treatment of such great numbers it is important to see that priority in treatment is given to those with some chance of survival. It seems a good suggestion therefore that ionising chambers, which would record the amount of radiation to which the patient has been subjected, should be issued to the whole population. Those casualties whose ionising chamber showed that they had been exposed to less than 600r would be treated first. At Hiroshima

there were about 80,000 fatal casualties. At Nagasaki only about half this figure are said to have died although the domb had twice the force. The fact that the majority of people at Hiroshima were caught in the open in the most probable cause of the difference in the figures. Some dispersal of population, an efficient warning system and some provision of deep shelters can be expected to reduce the figure of fatal casualties in any future similar bombs to very much lower figures.

Fig. 3.—ACUTE DIFFUSE. Acute diffuse ionising radiation illness with X-ray burn of buttock (Mr. Rainsford Mowlem's case). This photo taken 3 weeks after exposure to X-ray shows that diffuse radiation effects can occur as a result of accidents in X-ray therapy The primary condition was a skin lesion of the vulva. 20 minutes instead of 2 minutes exposure to X-rays was given by accident. Total dosage in r units not known.

4. ACUTE DIFFUSE IONISING RADIATION ILLNESS.

Dosage according to Zone.

Material—human and animal (choice of animals).

Course and symptoms. The main phenomena—a latent period then hæmorrhage manifestations, followed by bacterial invasion.

Possible pathology.

Mortality. Over 600r rarely survive. 4-600r 50% die.

Late effects. Leukæmia (one case from Japan so far); bone sarcoma; genetic (? only after 10 generations and then with inbreeding of exposed population).

Therapy. Prophylaxis by preliminary bleeding, phenylhydrazine, preliminary X-ray, desoxycorticosterone. Treatment chiefly by repeated fresh blood and prolonged antibiotics.

This important illness may be defined as the constitutional reaction to ionising radiation. That is to say any patient having X-ray therapy may have, to some very slight or severe degree, this condition; but it is only since Hiroshima and Nagasaki that the clinical entity has been extensively recognised and reported. Our recent knowledge comes chiefly from human material in Japan, and from the animals at Bikini and experimental laboratories. It was thought that goats, pigs, rats and guinea pigs would best meet the experimental needs. Goats and pigs are approximately as sensitive to total body radiation as man, guineapigs are more sensitive and rats are more resistant.

I can only deal briefly with this important subject; but I particularly wish to emphasise the grave and adverse influence of sub-lethal dosages of diffuse radiation as in Zone 3, on the course of fractures, burns and other injuries.

Total dosage in r units is only one of the four main factors which determine the body's response to ionising radiations. Type, rate of radiation and area of exposure are also of critical importance. Dosages (e.g. above 600r) which given in one session would be fatal, can be tolerated if staged—they may then cause the chronic, not the acute radiation illness. The wider the body surface exposed the more hæmetopoietic system affected by radiation—particularly bone marrow—and the more severe the constitutional reaction. The highly ionising alpha and beta particles cause chiefly local skin burns, rather than the constitutional reaction, being of low penetrability, unless they are taken internally in contaminated water or food when they can effect the marrow.

Fig. 4.—THERMAL BURN. 98% body surface burns; chiefly epidermal and dermal in depth. This patient was trapped for 5 minutes in a small cabin into which a high pressure steam pipe had burst (such an accident as might occur in Zone 3). The whole surface of the body except the natal cleft showed erythema and vesiculation. 16 pints of plasma were given in the first 24 hours to maintain blood pressure above 90 mgm. and the Hb% below 110%. He died of amnia on the sixth day.

It is possible in animals experimentally, to produce death "under the beam" (say 30,000r given in 6 hours), but in lesser dosage acute ionising radiation illness shows characteristically a latent period before the onset of symptoms. After an initial attack of nausea and vomiting there is a symptomless period before hæmorrhage manifestations (purpura, bloody stools) appear, then bacterial invasion and the clinical signs and symptoms of agranulocytic angina. The shorter the latent period the worse the prognosis; if 2-3 days, death is probably certain within 10 days; if 7-12 days, some live and most of those who die will do so 3-5 weeks after exposure, but some deaths will occur much later. The earliest blood changes are in the lymphocytes, a fall in which may be detected within 24 hours of exposure. The leucopenia is later, but if the w.b.c. falls below 1,000 the result is always fatal; if it remains always above 2,000 the case is likely to survive. Epilation commences on the 13th and eighteenth day. About this time bacterial invasion, particularly of mouth and of any wounds or burns, is rapidly progressive.

The exact nature of the lesion produced in the body cell by ionising radiation is not known. Ionisation may interfere with the nucleo-protein metabolism of the nucleus or with the lipo-protein cell envelope, or change or release intracellular enzymes, or do all these things.

The different sensitivity to radiation of the cells of the body provides a clue to the pathological changes and clinical course. Begonie's law is still broadly accurate. It states that the most primitive cells, those undergoing cyclic proliferation and maturation, such as primitive blood cells and the germinal layers of gonads are the most sensitive, and the most differentiated cells, such

as muscle and nerve cells, are the most resistent to the effects of radiation. But important exceptions are now known. Very primitive erythroblasts have been shown to be more than slightly more mature red cells resisttant (and preliminary bleeding to stimulate bone marrow production of these cells in experimental studies, increases the incidence of survivors in animals). The latent period seen clinically in the acute ionisation illness can be sxplained on the assumption that the adult blood cells survive while the more early types in the marrow are killed. When the adult cells die, in 7-21 days, there are no replacements.

The order of sensitivity of body tissues can be listed in brief as :

1. Lymphoid tissue—bone marrow, lymphocytes, lymph nodes, Peyer's patches.
2. Polymorph nuclear leucocytes.
3. Epithelial cells of gonads.
4. Germinal layers of skin, mucosa.
5. Endothelial cells.
6. Connective tissue cells.
7. Nerve and tissue cells.

Treatment of acute ionising radiation illness is still essentially empirical, but experimental work is promising ; it is known that preliminary exposure to X-ray, bleeding and desoxycorticosterone increase the chances of life. If we could develop means of controlling the antigenant body repulses of the body to foreign tissues, then Lectergeous grafts (of thin as well as hæmectspoidic tissues) would become a practical and possibly successful treatment.

Once the disease has been established the most scruplous toilet of the mouth, and of any burns, plus high vitamin protein diet, with repeated fresh blood transfusions and prolonged antibiotics (e.g. penecillin plus chloromycetin) form the basis of treatment; and are vastly expensive from every point of view—time, material, specialised personnel—it is.

(*To be continued in our next issue*).

Guy's Hospital Music Club

The Music Club is giving a full performance of Bach's " St. John Passion," in the Physiology Theatre on Wednesday, March 22nd, at 7.45 p.m.

Dr. Noel Nickson, who has conducted all of the six concerts which have been given in the last three years, has recently returned to Australia to take up an appointment as a Cathedral organist. During this time a variety of works have been performed, including three Bach cantatas, two major works by Purcell, Fauré's Requiem, part of Handel's Messiah and several concertos. He will be missed and the Club expresses its appreciation for all he has done.

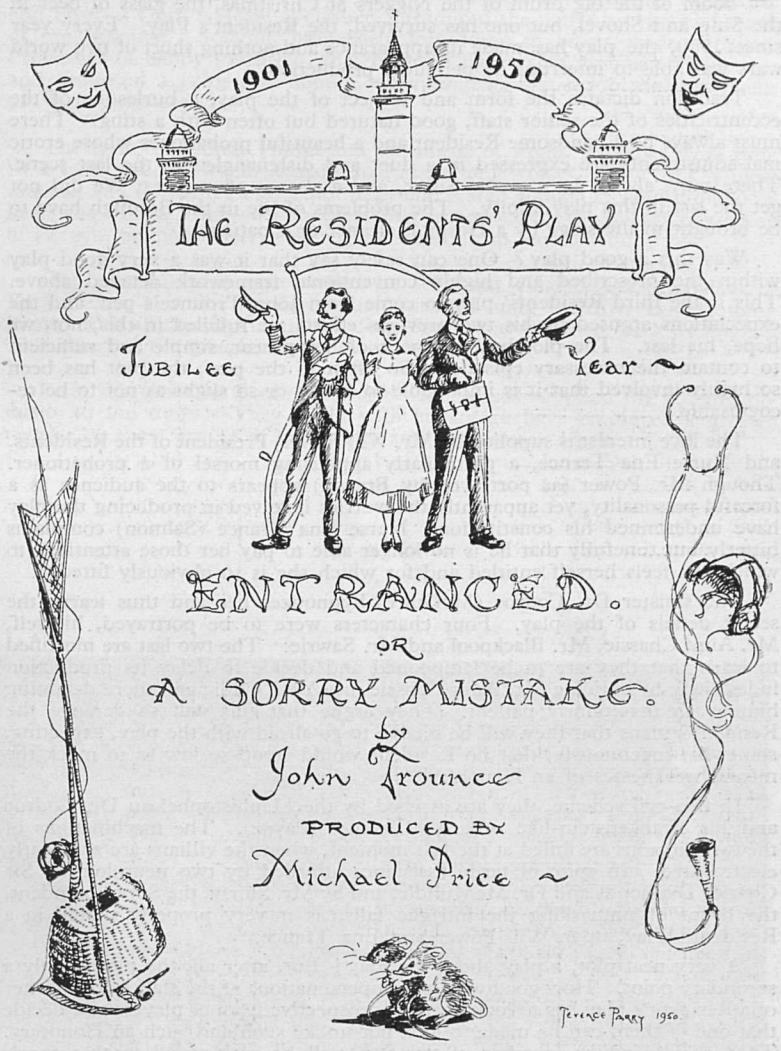
The Club is fortunate in that Mr. Eric Weatherall has agreed to conduct the St. John Passion, and he has been taking rehearsals for the last month. He has had considerable experience in choral music and is a horn player in the L.P.O. Soloists have been chosen, and as usual to ensure a full orchestra, the scant number of players in the Hospital will be liberally supported by others from outside.

The concert is the most ambitious yet attempted, and the expenses will be even heavier than before. All members of the Hospital will be very welcome no tickets are required, but the Secretary will be pleased to reserve seats for members of the staff on application to him.

Thirty Club Dinner, 1950

The Annual dinner of the Guy's Hospital Thirty Club will be held on Friday, June 9th, 1950, at the Royal Air Force Club, Piccadilly, W.1.

Full details will be sent to members at a later date, but this notice is inserted in the hope that members will keep the date free.


1901
1950
THE RESIDENTS' PLAY
JUBILEE
YEAR
1st
ENTRANCED.
OR
A SORRY MISTAKE.
by
John Trounce
PRODUCED BY
Michael Price
Terence Parry 1950

The Residents' Play

TOO many of the old and lovable traditions of Guy's are things of the past, the supper in the Dressers' room over the Front Surgery, the roar and boom of the big drum of the Niggers at Christmas, the glass of beer in the Ship and Shovel, but one has survived, the Resident's Play. Every year since 1900, the play has made its appearance and nothing short of two world wars was able to interrupt its perennial production.

Tradition dictates the form and subject of the play, a burlesque of the eccentricities of the senior staff, good natured but often with a sting. There must always be a handsome Resident and a beautiful probationer whose erotic mal-adjustments are expressed in a duet and distenangled in the last scene. There must always be a comic Sister, and a chorus of nurses. We did not get the last in this play, a pity. The problems of life in the Borough have to be brought to the stage by a Hospital cleaner or a patient.

Was this a good play? One can safely say that it was a very good play within the prescribed and highly conventional framework detailed above. This is the third Residents' play to come from John Trounce's pen, and the expectations aroused by his two previous efforts are fulfilled in this, not, we hope, his last. The plot has the merit of being neat, simple and sufficient to contain the necessary episodes. So often in the past, the plot has been so highly involved that it is impossible to follow or so slight as not to be recognisable.

The love interest is supplied by Mr. Will Power, President of the Residents, and Nurse Ena Trance, a particularly appetising morsel of a probationer. Though Mr. Power (as portrayed by Brewin) appears to the audience as a forceful personality, yet apparently the worries involved in producing the play have undermined his constitution. Nurse Ena Trance (Salmon) complains bitterly but tunefully that he is no longer able to pay her those attentions to which she feels herself entitled and for which she is so obviously fitted.

The sinister Dr. Codroe (McGuire) hypnotizes her and thus learns the secret details of the play. Four characters were to be portrayed, himself, Mr. Aunt Chassie, Mr. Blackpool and Mr. Sawrie. The two last are mortified to learn that they are to be lampooned and decide to delay its production indefinitely by enticing Mr. Aunt Chassie into York Clinic and there detaining him as an involuntary patient. They argue that this will so derange the Resident's plans that they will be unable to go ahead with the play, expecting, somewhat ingenuously, that no Resident would stoop so low as to mock the mental weaknesses of an Honorary.

In this evil scheme, they are assisted by the Mephistophelean Dr. Codroe and his Frankenstein-like orderly, Clarence (Payne). The machinations of the two surgeons are foiled at the last moment, when the villians are accidently electrocuted. In spite of tardy assistance afforded by two neurologists, Sir Charley Diamonds and Dr. McMuddle, and by Mr. Shirty, the Superintendent, the brunt of unmasking the intrigue falls, as it very properly should in a Resident's Play, upon Will Power and Ena Trance.

A very neat plot, a play about the Play! But, after all, the plot is only a secondary point. How good were the impersonations of the staff? The writer of a Resident's play has to look over his prospective team of players and decide that one of them can be made to look not unlike such and such an Honorary. That decides which member of the staff will be caricatured in that year's production. Merryweather (deputising for Crossley) has long made a study of Mr. Aunt Chassie and Chassiana. Such a part was a gift indeed to him, and he took full advantage of it.

McGuire, with a soft Scots accent and a lean, taut figure, made a very tidy impersonation of Dr. Codroe. The figure of Sir Charley Diamonds, clad in the original's own clothes and brandishing the original's own fishing rod and landing net, failed to come quite to life, though that may have been more the fault of the script writer than of O'Keefe. Morris, relying almost

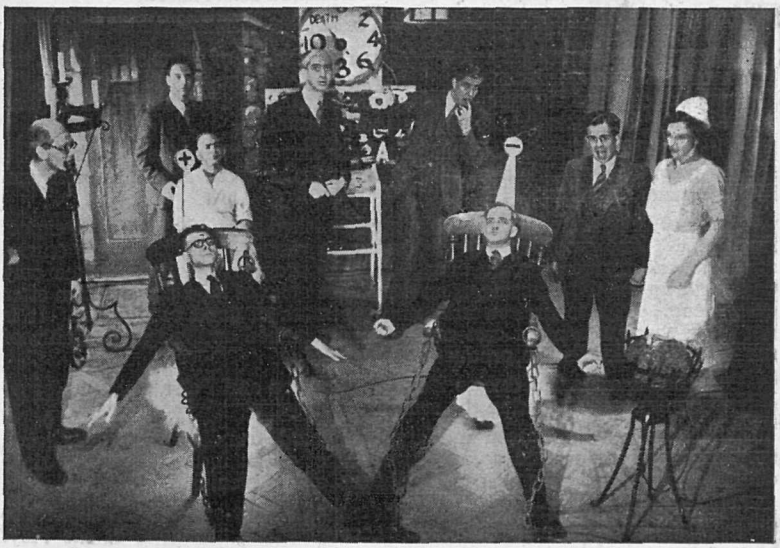
completely on inspiratory sussurations, made a satisfactory Mr. Shirty. Menzies made a creditable figure of Mr. Blackpool as the chief villain; Gilbert, do what he could, could make little of a very unrewarding part as Mr. Rex Sawrie. Parry was presented with the almost impossible part of Dr. McMuddle.

Of the straight parts, Brewin as Will Power and Salmon as Ena Trance, made an exceptionally attractive pair. Nicholson as Alderman Artichoke and Dyer as Gert, a Hospital cleaner, introduced the native accents and gusto of the Borough. Soothill, immensely forbidding in black, made of Sister Probasher (a happy invention, that name) a figure that dominated the stage and produced a volume of sound, when singing, that made the front stalls cower in their seats.

The lyrics of Sidney Hilton and the music of Frank Faulkner were sung by a cast, some of whom actually had respectable voices. Now this is most unusual in a Resident's Play; normally one is well enough pleased if one only hears the words. But we were pleasantly impressed by the quality of singing of Brewin, Salmon, Merryweather and Soothill, to mention but a few.

Our personal preference would be for Aunt Chassis' song: Ballad of York Clinic, and for the unspiritual Spiritual sung by Miss Lou Cotomy (Scott) with all the rhythm of the deep South and the force of a jet engine. This received the greatest applause of the evening.

Peter Ruggles and Geoffrey Baker at the pianos supplied the accompaniments to the songs. They could with advantage have employed a greater volume, as the acoustics of the theatre are by no means ideal.



THE FINAL EPISODE

AN UNSPIRITUAL SPIRITUAL

My mammy told me as I cried,
When she beat me on her housemaid's knee,
"The only thing my baby hasn't tried
Is occupational therapy."
I didn't want to leave that out,
And now you'll hear me shout.

I've found my station, my inspiration,
With minds that are working wrong,
I sing all day, my work is play
And Lawd you made the night too long.

I'm no hysteric, just atmospheric,
Responsive to every call.
I've got a yen for maniac men
Enticin' me to give my all.

Could become a cynic, working in a clinic
Where the boss don't understand,
A little local heat is just the way to treat
A patient with an over-active gland.

Instead of dopin', this child's still hopin'
Someone will hear her song,
And a man I'll find with a one-track mind
Then Lawd please keep the night real long.,

A life of healin', I told the Lawd,
Was the goal for which I'd work and plan,
And now he sure done give me my reward,
He bring me a real live man.
He's the first one that I've had,
What a shame he's slightly mad.

There's no mistakin' that you've been takin'
Sedatives much too strong.
As I passed by, I could hear you cry
"Lawd, you made the night too long."

Now introspection gives no protection
To minds that have run right down.
Get into step and lets get hep'
Brother, will we paint the town.

We could get groovie, takin' in a movie,
Come where the rhythm's hot.
You'll find that E.C.T. ain't got a thing on me
When my rhumba hits a vital spot.

Say Mr. Chassis, ain't I the lassie
To straighten your line of thought.
Upon my soul, make me your goal
And Lawd you'll find the night too short.

BALLAD OF YORK CLINIC

It seems very far from a surgical ward,
And all the familiar faces,
The longer I sit here the more I feel bored
And my colleagues will pinch all my
private cases.

Will I be back in a sterilised gown
A mask and a cap on my nut,
Instead of arranging strands of straw
And labelled a low-grade mutt.

I've given titles to human vitals
In my illustrious past.
But these are stories of ancient glories
Whose memory's fading fast.

I potter around in this lunatic world
Surrounded by ugly old dames,
Who never tire asking me to play
Peculiar sexy games.

Why do you think they are keeping me here
When I can certainly claim
I might have been mental for many a year
But my patients still recovered just the
same.

My phantasy life in the outside world
Brought on a psychosis they feel;
Better by far for me to be
Up here where the problems are real.

A sigh I'm heaving as I sit weaving,
And think of my erstwhile wit,
My hand is steady, my brain is ready
Though pathologically split.

My surgical skill is said to be lost,
Psychiatrists think I'm bats,
The Therapy that is the best for me
Is sewing up holes in mats.

A novel feature, and very welcome, was the revival of a few songs from the Plays of the early thirties. Particularly happy was the invitation to Dr. De Gruchy and Dr. Scott to play again some of the old favourites from bygone plays during the interval. It made us very nostalgic.

The standard of acting, as distinct from impersonation, was higher than in the past. Brewin, Salmon and Merryweather were almost professional in their stage craft.

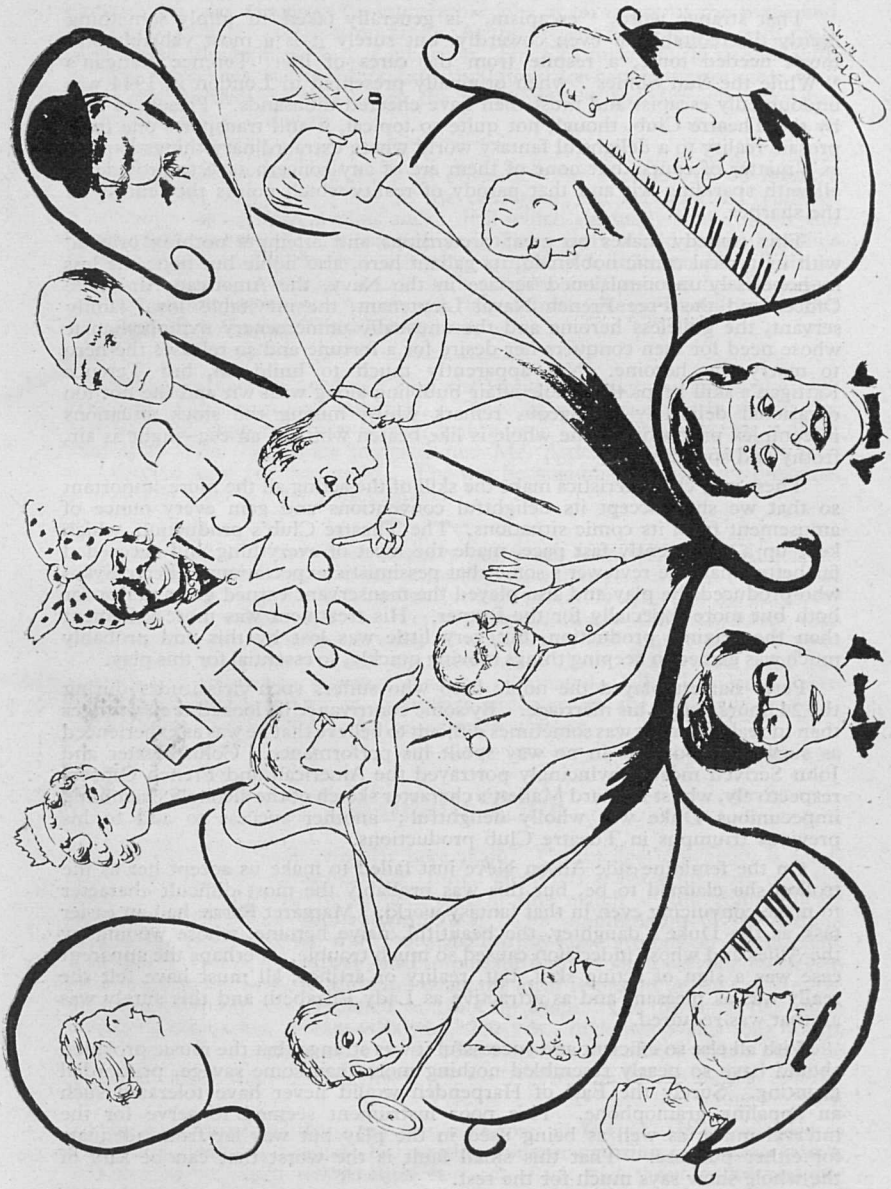
Michael Price's production was as well polished as one has learnt to expect from him. The cast was well drilled, there were no hitches in the entries and exits, no hiatuses in the dialogue. The progress of the play was only once held up for the granting of an encore, in spite of loud acclaimation after every song. This is praiseworthy and the mark of good production. It is not often that an amateur cast can be so disciplined and it speaks highly of the care expended in the production.

Our thanks are again due to Daphne Hoeltgen and Peter Griffiths for so ably designing and executing the scenery.

Of the many who, unseen and largely unheard, trundled furniture, clicked switches and manipulated scenery, we cannot speak individually, but their efforts contributed very much to the success of the evening.

Thank you, John Trounce and Residents, for once again rising so well to the occasion and for maintaining so thoroughly the traditions of the Play. May it live to celebrate its century.

P.V.R.


ENTRANCE
1950

"While the Sun Shines"

(Presented by the Guy's Theatre Club in the Physiology Theatre, March, 1950).

That strange word, "escapism," is generally taken to imply something faintly discreditable or even cowardly, but surely it is a most valuable and much needed tonic, a respite from the cares of life. Terence Ratigan's "While the Sun Shines" when originally presented in London in 1944 was undoubtedly escapist and must then have cheered thousands. Presented now by the Theatre Club, though not quite so topical, it still transports one from prosaic reality to a delightful fantasy world where extraordinary things happen as a matter of course but none of them are of any concern save to provide us all with sparkling wit and that parody of reality which points the fantasy all the sharper.

This comedy makes no great pretensions and attempts nothing original with its typical comic nobleman, its gallant hero, also noble but none the less in hopelessly uncommisioned service in the Navy, the American Air Force Officer and the Free French Naval Lieutenant, the inevitable loyal family servant, the guileless heroine and the unusually unmercenary nymphomaniac whose need for men conquers her desire for a fortune and so releases the hero to marry the heroine. Not apparently much to build on, but Terence Rattigan's skill keeps the whole affair bubbling along with wit and the not too occasional delicately outrageous remark whilst mixing the stock situations in complex profusion. The whole is like beaten white of an eeg—light as air, frothy and sparkling.

These very characteristics make the skill of the acting all the more important so that we shall accept its delightful conventions and gain every ounce of amusement from its comic situations. The Theatre Club's production, which kept up a consistently fast pace, made the most of everything and succeeded far better than the reviewer's somewhat pessimistic expectations. Peter Sykes who produced the play and also played the manservant earned great praise for both but more especially for the former. His treatment was more vehement than the original production, but very little was lost by this and probably much was gained in keeping things moving quickly, so essential for this play.

Peter Barrett played the noble hero who suffers such vicissitudes during the 24 hours before his marriage. By some contrivance he looked even younger than in real life and it was sometimes difficult to believe that he was as experienced as suggested, but this in no way spoilt his performance. Colin Dexter and John Scriven most convincingly portrayed the American and French Officers respectively, whilst Bernard Mallett's character sketch of the alcoholic, gambling impecunious Duke was wholly delightful; another success to add to his previous triumphs in Theatre Club productions.

On the feminine side Alison Neve just failed to make us accept her as the trollop she claimed to be, but this was probably the most difficult character to make convincing even in that fantasy world. Margaret Barrie had an easier task as the Duke's daughter, the beautiful, naive heroine, whose wooing by the Allies and whose indecision caused so much trouble. Perhaps the apparent ease was a sign of acting skill, but, reality or artifice, all must have felt she really was as pleasant and as attractive as Lady Elizabeth and this surely was all that was required.

With all else so efficient and successful it was strange that the music provided should have so nearly resembled nothing more than some savage, primordial grunting. Surely the Earl of Harpenden would never have tolerated such an appaling gramophone. This poor instrument seemed to serve for the interval music as well as being used in the play but was far from adequate for either purpose. That this small fault is the worst that can be said of the whole show says much for the rest.

The vociferous applause of the audience and the loud, long laughter were all the evidence needed to show that the Theatre Club still maintains for an amateur group an extraordinarily high standard.

D.C.D.

About the Park

Guy's Hospital are fortunate indeed to have such an excellent works department. Its members do inumerable jobs at all hours of the night and day just to keep the Hospital running. At the present time we note with great pleasure all the painting that is going on. The Colonnade fairly dazzles with its new white coat and the dark brick buildings are hardly recognisable with the newly painted windows—even the telephone box by Matron's office has been given a new red coat.

Other activities are not quite so obvious. For a period of 48 hours a group of three men bored a hole in the courtyard, just behind Lord Nuffield. They had a sort of derrick affair and a drill which gradually sunk further and further into the ground. At intervals one of the men would scrape handfuls of mud off the end of the drill and put a sample in a little jam jar. This jar was then carefully packed in a case with sawdust and lots of others little jars and the drilling went on. Apparently they didn't strike oil as we had hoped and they all disappeared, machinery too.

Many of you have no doubt seen the Resident's Play and noted the high standard of make-up and costumes. The wigs were particularly good; for instance, one character, Mr. Shirty, had a wig originally made for a West End show, but the wearer impersonated Mr. Attlee and we hear this part was deleted after the first night. The wig became obsolete and, we presume, it was only sent to Guy's by mistake.

The entrance to the Front Surgery has never been well disposed for the manœvering of ambulances or the unloading of stretcher cases. At the instance of the Casualty Surgeon the Hospital Authorities readily agreed to the necessary structural alterations and the Bermondsey Borough Council acted with commendable promptness. A gang of workmen is now busily engaged upon raising both the pavement and the roadway so that the awkward steps and corners that existed in the past shall be eliminated. What is more the men themselves are displaying an exemplary industry, as the incessant rattle of their " infernal machines " bears eloquent testimony.

Athletic Club

The Athletic Season is nearly here again. Cambridge University is sending a team to compete against the United Hospitals at Motspur Park on May 16th. Guy's men wishing to take part in this match should communicate with G. A. E. Baker before April 23rd. The preliminaries of the United Hospitals Championships will take place on the same ground on Wednesday, June 7th. This is one of our most important fixtures and everyone interested is strongly urged to enter his name when the form is posted in the Colonnade. It is time we relieved St. Bart's of the Cup again. On the same day there will be a few ladies' events—100yds., 220 yds., high jump and long jump. Miss Helen Cummins is anxious to hear from any members of her sex who feel that Guy's should be foremost in contributors to the U.M.A.C. Ladies' Section.

Then of course we have the Annual Sports at H.O.P. It is proposed to shorten the running time of this meeting without omitting any of the events which gave so much enjoyment last year. Sack and three-legged training has already started and some dental students are pulling teeth as if they had the rope back in their grip. There will be an informal dance in the pavilion afterwards, as last year. Thanks to the generous co-operation of Mr. Prentice, Hon. Sec. of the Cricket Club, it has become possible to hold Sports day on Saturday, July 1st. The Athletic Club Secretary is Mr. J. V. V. Lewis.

Sport

RUGBY

HOSPITAL CUP

2nd Round

Guy's *v.* St. Thomas' Hospital

Lost 13—0
21st February, 1950.

The Guy's threequarter line was re-shuffled for this game, following the loss of Frank le Clus. W. J. Howells moved to fly-half, K. Heber to centre and E. W. Birch returned on the wing.

Guy's played with the wind for the first half. They attacked strongly from the whistle and St. Thomas' were penned down in their own half. Their forwards were doing grand work, obtaining the ball in tight and loose by their unison and speed. Then St. Thomas took the lead when a threequarter movement started from the loose. The try was unconverted. At once the scores were nearly levelled when D. le Clus was just wide with a penalty kick; a few moments later he missed another. And so half-time.

The second half was a replica of the first. Once again the opposing forwards were just a bit quicker in the loose and in backing up their threequarters. The Guy's forwards seemed sluggish and unintelligent. The bad handling in the backs neutralised our scoring chances and let St. Thomas' in on two occasions. Boothman dribbled away from a dropped pass and Ross-Russell converted; and finally their Captain, Coster, went over for another converted try. The game was a Saturday lesson to Guy's, of the value of team spirit and determination and fitness.

Team: D. le Clus, B. M. Gray, K. Heber, E. S. P. Williams, E. W. Birch; W. J. Howells A. Large; C. T. M. Wilson, J. Robinson, J. Hobbs, S. F. Knipe, C. Pook, A. Bellis, W. G. Davis, P. Rademan.

Guy's *v.* London Irish

At Rectory Field. Lost 8—9.
25th February, 1950.

Guy's began one man short as J. Robinson found London Transport inadequate. Hobbs had his eyelid cut within two minutes and left the field. With 14 men Guy's held on well and when they attained full strength, Hobbs being patched up and Robinson having turned up, they immediately celebrated with two tries. Large broke away on the blind side, drew the full back and gave Gray the scoring pass. A moment later Heber ran strongly,, passed to Davis, then to Rademan who scored. D. le Clus converted.

Just after half time Dwyer dropped a goal for the Irish to make it 8-3.More rough and tumble with the Guy's forwards getting the ball and stemming any Irish attacks. And then Archer was allowed to canter through for a try, and Ledlow was wide with his kick. Howells was now off the field having a cut cheek plastered and Wilson was spitting the remains of two teeth at his fellow countrymen. Several Irishmen limped about, it was amazing to see so many injuries in a perfectly controlled and clean, though robust, game.

Just before the end the Irish scored again and won.

Team: D. le Clus, B. M. Gray, W. J. Howells, E. S. P. Williams, E. James, K. Heber, A. Large, C. M. Wilson, J. Robinson, J. Hobbs, C. Pook, S. F. Knipe, G. Bellis, W. G. Davies, P. Radman.

JUNIOR CUP

Guy:s "A" *v.* St. Thomas' "A"

At H.O.P. Won 19—3.

The Guy's team played some delightful football to win by a heavy margin. The forwards were particularly good, being on the ball together and heeling quickly from the loose. Territorially the game was played in the St. Thomas' half all the time.

The first score came after a few minutes when Russell the Captain, went over, Pritchard converted. James was next to score on the right and Pritchard converted. Then came a try from Watson and one from Baker. A 16 point lead at half time looked promising but despite complete overall supremacy the "A" could only score once more. The handling broke down and heads were lost in sheer excitement. St. Thomas' got three points for a good penalty and just missed another. Finally Smith gaves James an inside pass and an unconverted try resulted.

ASSOCIATION FOOTBALL

Guy's *v.* Aquarius

At H.O.P. Won 2—1.
18th February, 1950.

The game played at H.O.P. provided Guy's with their first League victory since October 29th, 1949. Their League record being to date: P.13, W.4, L.5, D.4, for 30 goals against 24.

Having won the toss Guy's elected to take advantage of what little wind that was blowing, but this proved of little advantage with the ball provided for play. Such was its condition that the Referee called for another ball.

At this time neither side had succeeded in finding their opponents net and although initially the play was scrappy the two elevens soon settled down to play some good hard football.

The Guy's eleven, in an endeavour to find a winning combination in preparation for the approaching Hospital Cup, had moved Holloway to outside left, where his play was so effective as to be shown by fact that he scored the Hospitals two goals.

Aquarius opened the score, their centre forward broke through to take advantage of a defensive error, putting his final shot well out of Fearn's reach.

This provided a stimulant to the Guy's attack which pressed continuously, but were unable to find the net until a little before half-time. A cross from Leckie on the right wing was partially headed clear and in the ensuing melee in front of the Aquarius goal Holloway fastened on to the ball, to put it well past their goalkeeper.

Thus we were again on even terms and remained so until the early part of the second half. Although Fearn was called upon to make several saves, and on occasion to concede a corner, the home defence by dint of long clearances were able to convert these into attacking movements. From one of these came the deciding goal, Willcocks at inside right got well up to head the ball across the goal to Holloway's feet, who "banged" it into the bottom left corner of the container.

This ended the scoring in the game and Guy's left the field the victors.

One thing deserves special mention. That the Guy's team play the game purely for the games sake is something that we all wish to see. The loosing of tempers on the field of play such as to warrant the Referee's special attention is a thing that must not occur again, for it is not only detrimental to the morale of the side, but damages also the reputation of this Hospital.

Team : A. Fearn ; M. Bishop, D. Lipington, D. Matthews, D. Allen A. Swift ; B. Cornhill, C. Willcocks, C. Leckie, A. Prince, P. Holloway.

SOUTHERN AMATEUR LEAGUE

3rd Division

Guy's *v.* Cuaco

Lost 2—3
25th February, 1950.

Guy's visited the Insurance Club, Cuaco, and after a very unsatisfactory game, lost 2—3.

I say unsatisfactory because it was marred almost from start to finish by petty fouls. It was amazing to see certain players of the Guy's team display such ungentlemanly manners on the field. If they continue to play in this manner it would be better for all concerned if they went else where.

Play opened with Guy's defending and only stout defensive play by Matthews and Lipington prevented an early score. Cuaco were the first to score when Miller, their Scottish Amateur International, headed in from a corner. Guy's were quickly on form when Cornhill finished of a movement initiated on the left of the field The interval came with the score equal.

The second half opened with Guy's attacking but Cuaco were first to score and quickly added a third when the Guy's goelkeeper failed to anticipate a cross and the Cuaco centre forward was in an easy position to head in the ball.

Guy's were soon on the attack again and the ball was entering the net in their favour when the Referee blew up because a Guy's player and a Cuaco man were having a wordy exchange. This disallowed goal was poetic justice and a disgraceful exhibition of temper got its desserts.

About two minutes from time Cornhill got his second goal when he headed a lobbing ball past the Cuaco goalkeeper.

The end came with Cuaco the victors.

Team : A. Fearn ; D. Matthews, D. Lipington ; R. Willcocks, D. Allan, A. Swift ; B. Cornhill, E. Newton, C. Leckie, P. Holloway, A. Whittaker.

HOCKEY

INTER-HOSPITALS CUP

Round 2

Guy's *v.* Middlesex

Lost 1—3
22nd February, 1950.

It must be a human failing to forget that a Trophy worth winning is worth keeping. Middlesex came on the field determined to advance a step nearer to winning the Cup, to Guy's fell the task of keeping the Cup. The game opened with some scrappy play, and Middlesex, the faster side had most of the play and soon scored the first goal. Guy's rallied and shortly before half time were rewarded with a goal from Opie. Hard hitting and fast tackling gave Middlesex the advantage in the second half. Guy's missed several opportunities and were slow to get rid of the ball. When Middlesex scored two more goals, Guy's forwards realised that it was up to them to save the situation. Their very determination and the tightly packed Middlesex defence hindered further scoring. Middlesex deserved their victory and we wish them success in their future Cup matches.

Team : F. H. Walker, G. H. Danford, H. Carter, R. Sandfield, E. A. Murray (Capt.) C. Robinson, D. V. Duckworth, D. E. Blake, S. Earl, C. H. Opie, R. Hodson.

Guy's I *v.* Sevenoaks I

Won. 3—1.
25th February, 1950.

Guy's II *v.* Sevenoaks II

Won 3—1.
25th February, 1950.

Guy's III *v.* Sevenoaks III

Lost 1—3.
25th February, 1950.

SAILING CLUB

At the Annual General Meeting of the Guy's Hospital Sailing Club the following Officers were elected for the 1950 Season :—

Commodore :
SIR HENEAGE OGILVIE

Vice Commodores :
Mr. H. J. B. ATKINS
Dr. K. O. RAWLINGS

Secretary :
J. W. BRADBEER

Treasurer :
D. B. LONGMORE

Committee :
J. R. REES
G. F. PENNEY

The Season starts at Burnham-on-Crouch on March 31st. Full details are to be seen on the Clubs' Notice Board or are available from members of the Committee.

BOXING

4th March, 1950.

Guy's *v.* Trinity College, Dublin

Draw. 3 bouts all.

A full account will appear in the next issue of *Pulse*.

UNITED HOSPITALS

AMATEUR BOXING CLUB

The Inter-Hospitals Boxing Championships (held under A.B.A. Rules) will be held at Seymour Hall, Seymour Place, Marylebone, W.1., on Wednesday, 22nd March, 1950. Doors open 6.30 p.m., weigh-in 6.15 p.m. commences 7.15 p.m. There are two Special Contests, by araangement with prominent Amateur Boxing Clubs. Prices of admission are 12/6, 10/-, 7/6, 5/-, 2/6, all numbered and reserved. Tickets obtainable from the Secretary United Hospitals Boxing Club, Guy's Hospital Medical School, S.E.1 (HOP 1848), the Hospital Secretaries or at the doors.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the post of **Resident Medical Officer (Male) in Nuffield House** (Private Block). Duties to commence April 7th, 1950. Appointments graded as Junior Hospital Medical Officer, i.e. salary at the rate of £700 per annum for a Medical Officer appointed not less than two years after registration as a Medical Practitioner, less £100 per annum for board and lodging. The post will be tenable for six months in the first instance.

Applications (6 copies) accompanied by testimonials, should be sent to the Superintendent, Guy's Hospital, S.E.1., on or before March 22nd, 1950.

Applications are invited for the appointment of **Junior Lecturer in the Anatomy Department.** The appointment will date from 1st April to 30th September, 1950, in the first instance. Salary commencing at £600 per annum, plus superannuation and family allowance. Forms of application are obtainable from the Dean and should be lodged in the Medical School Office not later than 28th March

UNIVERSITY OF LONDON

The title of Professor Emeritus of Chemistry has been conferred on C. S. Gibson, F.R.S., on his retirement from the Chair of Chemistry at Guy's Hospital Medical School.

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

L.D.S.

Final Examination.

Part I. Surgery.

P. W. J. Bosman	D. J. Murch
R. C. Bret-Day	R. E. W. Pearce
D. R. Burnapp	H. W. Powell
H. G. Carr	V. G. Rice
L. Dawson-Squibb	R. L. G. Thornton
P. E. Gerrard	E. Tweddle
S. Morgan	R. B. Whalley

Part II. Dental Surgery.

T. H. Aldridge	A. P. Leech
D. R. Boswell	A. A. Leigh
C. B. Bowes	J. G. Lloyd
D. G. Brett	I. L. Roth
P. Frank	A. H. Stocker
V. H. Freiberger	W. R. Thomas
P. Glazebrook	H. G. S. Thomson
J. D. Haworth	P. H. Tucker
P. J. Holloway	R. E. B. Turner
M. J. Humphrey	G. J. L. Want
B. E. Lawson	N. J. Wood

CONJOINT BOARD

Diploma in Public Health.

R. Franey P. Westcombe

ROYAL COLLEGE OF OBSTETICIANS AND GYNCECOLOGISTS.

M.R.C.O.G.

S. A. Scorer

MISSING

Volume 44 (1947) **The Archives of Pathology** was taken six weeks ago without permission, from the Department of Pathology Library would the borrower please return this book as soon as possible.

CHANGE OF ADDRESS

Miss Eileen D. Johnson, S.R.N. Sand Cottage, Budnick Hill, Perranporth, Cornwall.

JUNIOR MEDICAL REGISTRARS

The following have been appointed Junior Medical Registrars for the period ending September 30th, 1950 :—

To Dr. Douthwaite and Dr. Mann .. Mr. M. G. Thorne

To Sir John Conybeare and Dr. Hardwick .. .. Mr. G. L. L. Reynolds

To Dr. Hampson and Dr. Kauntze .. Mr. T. R. L. Finnegan

PAPERS BY GUY'S MEN

Blackburn, Guy. Acute Cholecystitis. *Practitioner*, 1950. **164,** 254.

Campbell, Maurice and Hills, T. H. Angiocardiography in Cyanotic Congenital Heart Disease. *Brit. Heart J.*, 1950, **12,** 65.

Cripps, S. Occlusal Equilibration of the Natural Dentition. *Brit. Dent. J.*, 1950, **88,** 90.

Hills, T. H. and Stanford, R. W. The Problem of Excessive Radiation during Routine Investigations of the Heart. *Brit. Heart J.* 1950, **12,** 45.

Hunt, J. N. The Interpretation of Histamine and Insulin Tests of Gastric Function. *Gastro-enterol.*, 1949, **13,** 336.

Layton, T. B. Treatment of acute Otitis Media with Discharge. *Nursing Times*, 1950, (Jan. 21st), 58.

—— Tonsils and Adenoids. *Med. World*, 1950, **71,** 707.

MacManus, Desmond. Some Reflections on General Medical Practice in the Past Thirty-five years. *Med. J.*, 1950, **223,** 77.

Merrivale, W. H. H. and another. Changes in size of Red Cells during Normal Pregnancy. *Brit. Med. J.*, 1950, i, 463.

Moynahan, E. J. The Antilhistamine Drugs in Dermatology. *Practitioner*, 1950, **164,** 218.

Pearson, R. S. Bruce. Sinus Bradycardia with Cardiac Asystole. *Brit Heart J.*, 1950, **12,** 61.

Shillitoe, A. J. and another. Fungus Infection of the Rectosigmoid Junction. *Lancet*, 1950, i, 350.

Waterfield, K. L. Einstein's Theory of Relativity. *Lancet*, 1950, i, 410.

BIRTHS

COX.—On February 22nd, 1950, at Nuffield House, Guy's Hospital, to Betty (nee Padbury) wife of Dr. A. G. Charlton Cox—a sister (Katherine Mary) for Christopher Charles.

LACEY.—On March 3rd 1950, at Widmore Maternity Unit, Bromley, to Joy, wife of G. Kenneth Lacey—a Brother for Rosemary.

LAWRIE.—On January 31st, 1950, to Jean Lawrie, M.B., B.S., (nee Grant) wife of Rex Lawrie, F.R.C.S.—a daughter.

MARRIAGES

SYCAMORE—RUGGINS. On Saturday, 25th February, 1950, at All Saints Church, Woodford Green, Essex, Edward McKim Sycamore, L.D.S., R.C.S.(Eng.) to Patrica Gordon Ruggins, S.R.N., S.C.M.

DEATHS

ELLIOT.—On November 28th, 1949, Charles Coldwill Elliott, M.D., M.B.B.S., of Sea Point, Cape Town, S. Africa.

RYLE.—On February 27th, 1950, John Alfred Ryle, M.D., F.R.C.P., late Professor of Social Medicine Oxford, Regis, Professor of Physic, Cambridge, Consulting Physician to Guy's, Barkhale, Sutton, Sussex.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1609 *25th March, 1950* *Ninepence*

PASSIM

THE recent General Election, as observers on all sides so readily agree, was characterised by evidence of political maturity and a display of social good sense. Argument vied with reason and at no time were the electors carried away by the flamboyance of the contestants or the distraction of scandalous "revelations." Would that the same could be said of the community in its more local extent.

When the proposal to erect a commercial bookshop within the hitherto almost sacrosanct precincts of the Hospital was first bruited widespread opposition was at once voiced. Letters on the subject appeared in the *Gazette*. But the forces of those who objected were never properly mobilised—or, perhaps, they were inadequate to the occasion. At all events the authorities proceeded with the scheme; reasoned and effectively presented opinions to the contary were lacking. Subsequently, however, a few of those irrational and irresponsible individuals who saw fit in the first place to take no counter measures that might have been at all successful embarked upon a series of puerile antics doing no credit to a "learned" profession and bringing harm instead of good to a cause so many had at heart. For our part, we would rather the bookshop had never come into existence at all; the conditions which made it even desirable are to be regretted. But now that it is an accomplished fact minor acts of unpremeditated destruction directed against it must stand condemned by all. To tear down the letters making up the name of the proprietors just as soon as they appeared betokened an inebriate outburst, a childish act on the part of those capable of nothing better.

The disquieting feature about such incidents is the realisation that they are reflective of an outlook that is regrettably widespread. Instead of a watchful public prepared to meet unwise official action with carefully considered propositions of a constructive nature the tendency today is to grumble and complain, and then to perpetrate what are no more than despicable and pointless acts of dissension.

The arrogant spirit of independence for which the American peoples are nowadays renowned devolves, surely, from that determination which inspired the pioneers to leave what they considered to be an oppressed England and found a new system overseas. Some few individuals may feel unhappy about the way that Guy's is run. They will never become absorbed into its tradition and spirit. Better, then, that they should go elsewhere at once. Others—and they are of course the majority—revere Guy's and respect the principles for which it is renowned. Yet they are unhappy about present trends. Let them stand forth, then, and make their presence felt, progressively and with formative ideas, not simply by negation. Among the ranks of the unorthodox, as we stressed in our previous issue, are the very elements essential to a vigorous and vital society. Those, by contrast, who just mutter discontentedly and then are guilty of petty acts of malice, can expect no less than the complete censure of the rest of the thinking populace.

The fire which broke out at the top of Hunt's House in the early hours of 7th March received considerable sensational attention in the national press. In fact, surprisingly little damage was done. The Hæmatology Department and neighbouring students' laboratory and rooms were burnt out, but the adjoining new Deep X-ray Therapy Unit escaped. The major damage was due to the destruction of the cast-iron roof trusses, first by the heat and then by the extinguishing waters.

Small Bowel Obstruction

By R. S. LAWRIE, M.D., F.R.C.S.

A Clinical Lecture delivered at Guy's Hospital Medical School on Thursday, October 6th, 1949.

LADIES AND GENTLEMEN,—This is supposed to be a continuation of Mr. Blackburn's lecture on large bowel obstruction and I think the most important things to try and tell you are how to diagnose and how to treat small bowel obstruction.

Mr. Blackburn must have told you that the main thing about large bowel obstruction is that it is a closed loop obstruction. At the proximal end is the cæcum and at the distal end is the obstruction. Inside that loop putrefactive changes often arise and if operation is not performed promptly the cæcum bursts and the patient dies of peritonitis. Small gut obstruction is different; usually it is not a closed loop obstruction, and not all cases need operation, so, first of all, we have to diagnose whether the obstruction is of large or small bowel.

The usual history of large bowel obstruction is that of an elderly person who has been constipated about six days and by the end of that time has distension, abdominal rumbling noises, and colicky pain in the abdomen. They look fit and in every other way are normal, but about half the cases die before they leave hospital so that their apparent fitness is misleading. Any of these cases may after a week show the symptoms and signs of small gut obstruction in addition.

Diagnosis

After the history and examination of the patient have suggested intestinal obstruction, it is imperative to have erect and supine straight x-rays of the abdomen; for these differentiate small and large gut obstruction, and indicate the proper treatment.

In large gut obstruction you will find always that the cæcum is grossly distended with gas. In small gut obstruction this is not so; there are gas and fluid levels in the bowel and it is usually possible to identify some of the distended loops as small intestine.

The presence of gas and fluid levels in the small intestine is always abnormal, except in infants. Fluid levels in the large bowel are characteristic of large bowel obstruction but occur also after a purge or an enema. It is therefore important to have the abdomen x-rayed before giving a diagnostic enema, so as not to confuse the issue.

Small bowel obstruction may be strongly suggested by the history; the person may have had abdominal operations performed in the past, such as appendicectomy, or had peritonitis or some other complaint which might cause small gut obstruction, or there may be no obvious cause.

The symptoms are usually colicky abdominal pain, persistent vomiting, abdominal distension and clinical deterioration. They deteriorate rapidly and become very ill in a biochemical way, and die a biochemical death unless efficiently treated.

Mechanism

What is the mechanism of this? A great deal of work has been done on it and it has been found that if the small gut is obstructed in an animal, in quite a short time the bowel above the obstruction becomes distended with gas and fluid. This gas has been analysed, and although you might think that it arose from putrefaction, actually 70 per cent of the gas is swallowed air and of the remaining 30 per cent, 70 per cent comes from the blood and is mainly nitrogen diffused into the bowel. Where does the fluid come from? If you pause for a moment you cannot help realising that a lot of fluid is secreted into the alimentary tract; in fact the total secretion, derived from the saliva,

stomach and bowel mucosa. liver and pancreas is about 8 litres in 24 hours. Most of it is reabsorbed, but when the intestine is obstructed absorption is impaired.

Why does the patient with small gut obstruction become so ill? The reason is so-called " toxæmia." We know there is *B. Welchii* in the gut, but absorption is reduced and toxic absorption has been shown not to be the cause. The " toxæmia " in these cases can, however, be accounted for by the loss of fluid and of electrolytes, notably sodium ions in the form of sodium chloride; for a person who has been vomiting for a few days with acute small gut obstruction becomes very short of fluid and very short of electrolytes.

Strangulation

We have accounted for the toxæmia and the gases. I have not yet said that there are two kinds of small gut obstruction between which a distinction must be made, namely, simple and strangulated. Large gut obstruction nearly always needs an operation. In small gut obstruction one kind needs operation, the other does not. If the obstructing mechanism is producing strangulation of the gut, there are circulatory changes, which must be promptly relieved by operation to prevent gangrene of the bowel and death from peritonitis. The cases which are not strangulated are better treated without operation, so it is important to know which type of case one is dealing with. If there is uncertainty, operate, but if you are certain that the obstruction is simple without strangulation it is better not to operate.

The pointers are these: we know that strangulation will produce gangrene of gut and peritonitis in a matter of hours so that if a patient comes in who has had the condition for several days without signs of this we can be sure that strangulation has not occurred. Strangulation causes peritonitis, with abdominal pain and tenderness. Simple obstruction does not. All the so-called toxæmic changes are much exaggerated in strangulation and the reason used not to be clear, but it has now been shown that practically all the additional systemic disturbances of strangulation of the small gut can be accounted for simply by the loss of actual circulating whole blood into the strangulated gut. The effect is like a severe hæmorrhage, for a loop can accommodate two or three litres of blood.

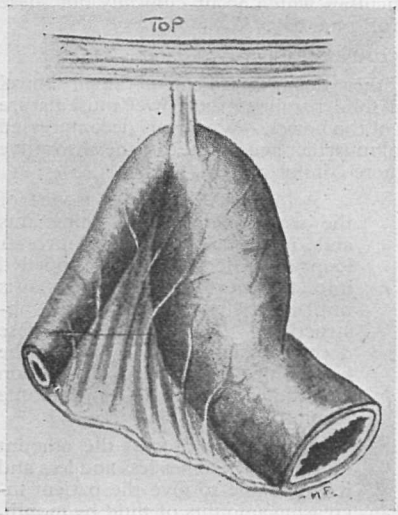


Fig. 1

These are the broad underlying principles you must clearly understand; large gut obstruction always needs operation, is diagnosed by the clinical story and by seeing a distended cæcum in the x-ray. *Small gut obstruction can be strangulated or simple*; simple cases are treated without operation, strangulated cases must be operated on, and you must make the distinction.

Treatment

For many years the mortality of intestinal obstruction remained high, while that of all kinds of abdominal conditions was falling. However, it has been steadily improving since about 1933 when the " suction period " of intestinal obstruction began.

Nowadays simple small gut obstruction is treated by intestinal decompression. Most of the ill effects of it are caused by intestinal distension with gas and fluid. When this is all sucked out of the bowel and the fluid and electrolytes replaced into the circulation, the lethal biochemical disturbance is restored and the problem half solved. But though the patient's life is saved the obstruction has not necessarily been relieved.

How is intestinal obstruction usually caused and how is it that simple suction can cure it without an operation to undo the obstructing mechanism? A very common cause is an adhesion (Fig. 1). Normally the guts are floating about in the peritoneum free to coil and uncoil as they wish, but after an operation or plastic peritonitis, an adhesion may form and anchor a loop of the small bowel; and if the patient subsequently has enteritis the anchored loop may kink, and so obstruct the passage of intestinal fluids and wind. If there were no adhesion the loop would straighten itself out and the wind would pass on. A Miller-Abbott tube reaching that loop can have the same effect by decompressing the loop and undoing the kink so that the obstruction is cured.

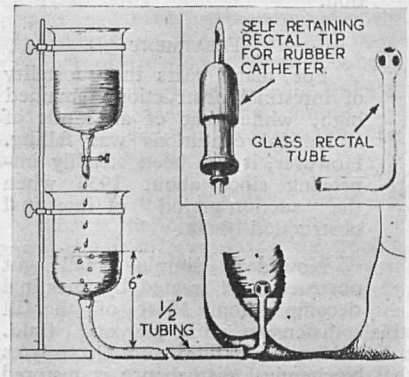
Maintainance of Nutrition

We have said that besides using a Miller-Abbott tube we must replace the fluid and electrolytes which have been lost. How do we do that? One is against using intravenous drips on every possible occasion but there are some substances such as blood which can only be given intravenously. Water, on the other hand, can be given per rectum, and one of the best methods is called the Murphy method (Fig. 2). J. B. Murphy of Chicago found that the rectum could absorb 30 pints of water or fluid per day, and that was what he found the average case needed. I think the patients must have got more dehydrated in those days before they came to be treated. Murphy's method consists of having a wide tube leading from a flask holding the required solution at the level of the buttocks, and a wide rectal catheter.

Leakage of rectal fluids is caused mainly by high pressure of either fluid or gas in the rectum. In Murphy's method the fluid head is never more than some 6 in. of water; and any gas in the rectum can be readily expelled along the wide tube. Thus continuous low pressure absorption occurs. The method can be supervised by the nursing service, whereas intravenous drips involve the doctor. Another method of giving fluid is by intramuscular infusion. Professor Grey Turner warmly praised this method in 1915 and it was revived in 1940. About 5 litres of saline or glucose saline per 24 hours can be given by this route through a long strong needle and is well absorbed if the patient is in need of it. If not, œdema develops. It is quite useful, especially if you cannot find veins or if there is a reason for not using the remaining veins. There are many difficulties which occur clinically but these are methods which you may find useful some day.

Intestinal Decompression

Intestinal decompression is the other main treatment of small bowel obstruction. Distension with gas and fluid paralyses the bowel musculature and may cause ischæmia and a rupture of the bowel. When it is decompressed and returns to its normal calibre, normal muscular action returns, the absorptive functions recover, and the patient is more comfortable.



MURPHY METHOD OF PROCTOCLYSIS
Pig. 2

A Miller-Abbott tube is one of the usual methods of doing this and it successively decompresses loop after loop and is propelled into the next loop by peristalsis until it reaches the site of the obstruction. In a favourable case decompression allows it to pass the kink which has caused obstruction and the case is cured for the time being.

During this process the amount of aspirate becomes less and less and it is possible to give the patient increasing amounts of fluid by mouth, which are retained and absorbed. Finally suction is omitted and a test substance may be given by mouth and recognised in the stool. Then the Miller-Abbott tube may be cautiously withdrawn.

This whole process should probably not take longer than a fortnight; for if the abdomen fails to be completely decompressed in that time; laparotomy is usually necessary. Also if left in too long a Miller-Abbott tube may cause œsophageal ulceration or severe bleeding from ulceration of the intestinal mucosa.

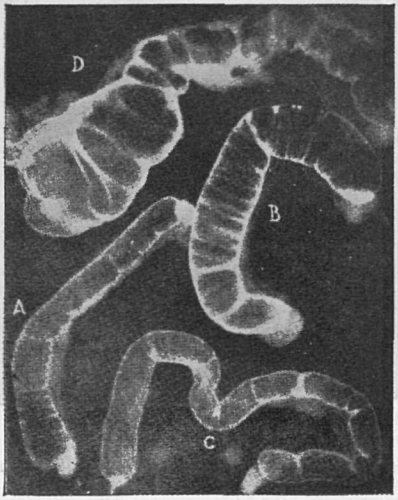


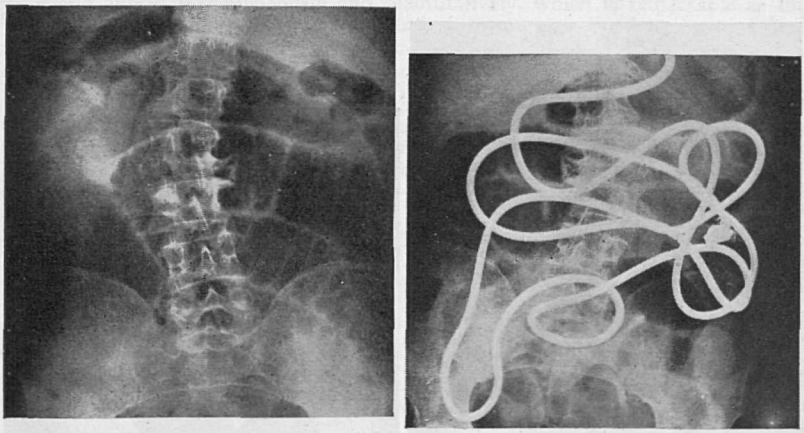
Fig. 3

X-rays of portions of intestine inflated with air after removal from the body. (a) Ileum, (b) Jejunum, (c) Ileum, (d) Colon.

In some cases, where decompression has failed to undo the obstruction, the actual anatomy of the obstruction may be extremely difficult to understand at operation as the peritoneal cavity is practically obliterated by adhesions which it would be very harmful to separate. The best thing to do may be to short-circuit the obstruction by anastomosing a convenient loop of bowel above it to one below; or in practice, to anastomose a collapsed loop of bowel with the Miller-Abbott tube palpable inside it to a collapsed loop with no Miller-Abbott tube in it.

You should be able to diagnose in the x-ray picture where and what kind of loops are distended. Fig. 3 shows x-ray photographs taken of characteristic pieces of gut blown up by air (from Wangensteen, Intestinal Obstruction).

ILLUSTRATIVE EXAMPLES.



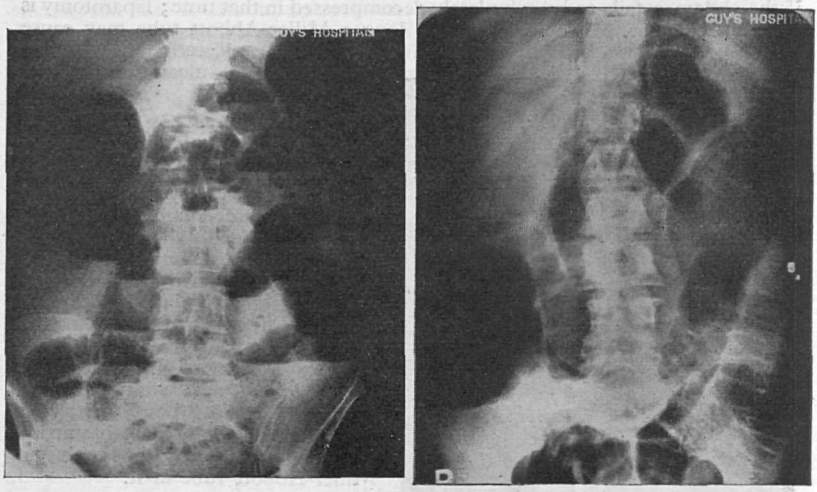
(Fig. 4. a and b)

These are X-rays of a man who developed small bowel obstruction a year after Hartmann's operation, from adhesion of small bowel to the stump of rectum in the pelvis.

Initially laparotomy was done to be certain there was no strangulation of intestine—as for instance through the lateral recess.

When his obstruction recurred 10 days later it was treated by Miller-Abbott decompression with parenteral electrolytes and fluid but when the tube had gone as far as it would some clinical distension remained and so did the obstruction. Accordingly the obstructed loops were short-circuited and he made an uneventful recovery.

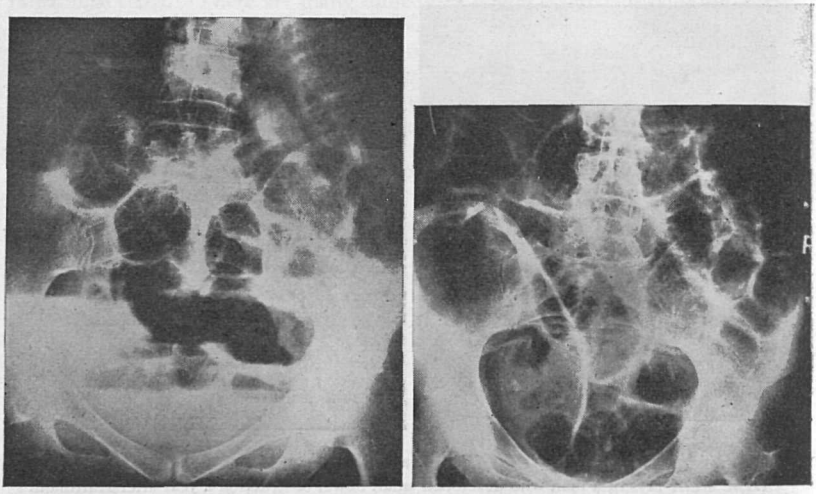
The X-rays show several loops of obvious jejunum.



(Fig. 5 a and b)

These are X-rays of a case of Mr. Eckhoff's (Grinstead) with gross gaseous distension of the bowel, and fluid levels.

Several loops are recognizable as jejunum, but there is *gross distension of the cæcum* with a fluid level in it indicating large bowel obstruction—in this case caused by a carcinoma of the left hemicolon.



(Fig. 6 a and b)

Here are X-rays similar to those of the previous case: This was an elderly woman with gross gaseous distension of bowel and fluid levels caused by a carcinoma of the left hemicolon.

Several definite coils of small bowel are recognizable in the centre and some less certain coils elsewhere. Note the gigantic distension of the cæcum, indicating large bowel obstruction and suggesting by its great size volvulus of the cæcum, which was found at operation. Note also that the "R" on the film is on the left side and don't be put off!

Further Observations on A.C.T.H. and Cortisone

By P. M. F. BISHOP, D.M.

A Clinical Lecture delivered at Guy's Hospital Medical School on Tuesday, March 14th, 1950.

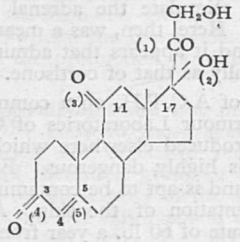
LADIES AND GENTLEMEN,—In July I gave a Clinical Lecture on "Compound E," and in November I gave one on "Diseases of Adaptation." To-day I will try to present you with a summary of our present state of knowledge in this rapidly progressing and widely expanding subject.

CORTISONE

The experience of the past year has done little to diminish the importance and specificity of cortisone in the treatment of rheumatoid arthritis and other conditions, and the key position it holds among the active principles of the adrenal cortex. Apart from the highly active "amorphous fraction" which still defies crystallization and which contains a factor controlling water and electrolyte metabolism, it is believed that the only primarily active principles of the cortex are Compound E (cortisone) and Compound F. (These two substances differ from one another only insofar as the former has a ketonic group at the 11-carbon atom, and the latter a hydroxylic group). It may be that such properties as œstrogenic, androgenic or progestrogenic influences produced by cortical hormones are secondary and incidental to the transient chemical structure of substances which are being built up into these two primary hormones, or are degradation products. It appears that a perfusate of the cortex contains only Compounds E and F, and not even the amorphous fraction or a deoxycorticosterone-like substance, for it has been shown that if deoxycorticosterone is perfused through the gland only Compound E appears in the perfusate. There would appear to be an enzyme which "11-oxygenates" deoxycorticosterone. The cortex also contains an enzyme which hydrolyses cortisone acetate perfused through the gland almost instantaneously and quantitatively, which is remarkable as this compound is very resistant to hydrolysis in vitro. Further mention will be made of enzyme systems in the cortex in connection with deoxycorticosterone acetate and ascorbic acid.

It is emphasised that the specificity of cortisone both with regard to its physiological functions, such as the conversion of protein to glycogen, and as regards its therapeutic effects, depends on the following five characteristics of its chemical structure :—

1. The side chain
2. The 17-hydroxyl group
3. The 11-keto group
4. The 3-keto group
5. The 4:5 double bond



Even the most trivial alterations may lead to complete loss of specificity.

When Hench and his colleagues first announced the results of their series of cases of rheumatoid arthritis treated with cortisone, considerable surprise was expressed at the large size of the effective dose. 100 mgm. daily is required to maintain beneficial affects in moderately severe cases, and 50 mgm. may prove inactive except in mild cases. Furthermore, 300 mgm. may have to be given daily as an initial dose in some cases. In contrast with the therapeutic doses of other steroids, such as œstrogens, progestogens and androgens,

the dose of cortisone is about ten times higher. It is believed, however, that the adrenals may actually produce about 10 mgm. of natural cortisone daily, and exogenous cortisone is not nearly so effective, for it is much more difficult to maintain a constant and adequate blood concentration, so that it is understandable that 100 mgm. daily might be required. It is possible that esterification may prolong the duration of effect and so save valuable quantities of cortisone. This method has already been used in the case of œstrogens, *e.g.* œstradiol benzoate and androgens, *e.g.* testosterone propionate, but nothing similar has yet been attempted with cortisone.

These high doses continue to present a very serious problem. Cortisone is at present prepared from deoxycholic acid, a constituent of ox bile, by a series of 36 difficult and laborious stages. 12,500 tons of beef cattle are required to provide sufficient bile to make enough cortisone to treat one patient for a year. Someone has suggested that the production of biliary fistulæ in suitable cattle might ease the position considerably, At present the Merck Corporation of New Jersey are the sole manufacturers of cortisone, and some little time ago were producing it at the rate of 200 gm. a month. There is very little cortisone in this country and none is available for clinical use, though it is now being offered in America at the rate of $150 a gm. A total synthesis of cortisone presents very great difficulties even to the world's greatest steroid chemists, such as Sir Robert Robinson of Oxford. Nevertheless, it is still the serious opinion of many that such an attempt should be made, however costly and long drawn out it may prove to be and a large sum of money has been granted to Oxford from the Nuffield Foundation for this purpose. In the meantime other possible sources of cortisone have been explored. The Strophanthus vine growing on the trunks of trees in Liberia and other parts of equatorial Africa, India, Burma, the East Indies and the Phillippines was said to be a possible source of a cardiac glucoside which on hydrolysis yielded the compound sarmentogenin from which cortisone can be prepared in twenty stages. Reichstein, the celebrated Swiss steroid chemist, recently spent nine months in Africa collecting specimens of the vine, and found that the species Strophanthus sarmentosus was the source of sarmentogenin. This vine may be propagated by seeds and cuttings but takes five years to bear seeds and the sarmentogenin is only found in great quantity in seeds so ripe that they are just ready to burst from the pod. The cultivation of this vine does not therefore seem likely to be a very fruitful source of cortisone, especially as one ton of seed would be necessary to produce enough cortisone to treat one patient for a year.

A.C.T.H.

The adrenocorticotrophic hormone (A.C.T.H.) had been isolated in pure crystalline form in 1942 and 1943 from swine pituitaries (Sayers, White and Long, 1943) and from sheep pituitaries (Li, Evans and Simpson, 1942, 1943) and was known to stimulate the adrenal cortex to secrete its hormones, including cortisone. Here, then, was a means of getting the body to produce its own cortisone, and it appears that administration of A.C.T.H. is equally effective therapeutically as that of cortisone.

The production of A.C.T.H. on a commercial scale has been entirely in the hands of the Armour Laboratories of Chicago, except for some " grey market " material produced elsewhere which is contaminated with posterior lobe hormone and is highly dangerous. Even the Armour material is still not absolutely pure and is apt to be contaminated with melanotropic hormone which causes pigmentation of the skin. Armours have been turning out this material at the rate of 60 lb. a year from hog pituitaries. Roughly 1,360 hog pituitaries weigh one pound and yield 1½ gm. of A.C.T.H. Armour's annual production would treat between two thousand and four thousand patients. Certain independent workers have been extracting their own A.C.T.H. and by drying it in acetone, instead of freezing in CO_2, which it is said destroys 90% of the activity, it has been possible to produce a compound twenty times more active than Armour's.

Li's peptide and Morris's ultra-filtrate. Professor C. H. Li working in the laboratories of H. M. Evans in Berkely, California, by hydrolysis with strong acid following heating, was able to produce an ether extract of the supernatant

fluid which, on drying, yielded a yellow powder containing a mixture of peptides. Whereas the molecular weight of the hormone was 20,000 that of the peptides was 1,200. It is believed that the peptide contains about 8 amino-acids. Dr. and Mrs. C. J. O. R. Morris, working at the London Hospital, have isolated a homogeneous peptide from A.C.T.H. by fractional ultra-filtration and ionophoresis, which proves to be about ten times as active as the protein hormone. This they have called "adreno-corticotrophic peptide" or "A.C.T.P." The interest which attaches to these peptides is the possibility that when all the constituent amino-acids have been identified they may be synthesised by a very much more simple process than the present partial synthesis of cortisone.

Functions of A.C.T.H. and Cortisone

In addition to the conversion of body protein to glycogen already referred to, which has given the group of cortical hormones to which cortisone belongs the title of the "sugar" or "S" hormone, or the "gluco-corticoids," administration of cortisone or A.C.T.H. produces certain wide-spread and characteristic effects, and the closest study of these functions is needed to enable one to understand some of the astounding clinical results which have been produced by the therapeutic use of these compounds.

Effects on the Hæmopoietic system. 1. *Eosinophils.* Thorn, Forsham, Prunty and Hills (1948) observed that administration of A.C.T.H. to a person with normal adrenals led to a depletion of eosinophils, but that this failed to occur in cases of adrenal cortical deficiency, such as Addison's disease; indeed they suggested the failure to lower the eosinophil count as a test for Addison's disease, whereas Spies and Stone have used the lowering of the eosinophil count, preferably in patients with eosinophilia, as a "screening" test for compounds producing A.C.T.H. or cortisone-like effects. Considerable emphasis has been laid on this effect, for it has been shown that the eosinophils represent the blood reserve of histamine, and that there is a marked excretion of histamine when A.C.T.H. or cortisone are administered. In this way they may be said to have anti-histamine properties and this would link up with their behaviour in allergic conditions.

2. *Lymphocytes and lymphoid tissues.* In adrenalectomised animals and in patients suffering from Addison's disease or dying from "shock" there is hyperplasia of lymphoid tissues, with enlargement of the thymus and lymphocytosis. A.C.T.H. and cortisone administration lead to thymic atrophy, disintegration of lymph nodes and lymphoid tissues generally, and a destruction of lymphocytes or a "budding off" of their cytoplasm. It has been suggested by some authorities that when this occurs γ-globulins are liberated, and the lymphocyte has been called "une glande mobile unicellulaire" its secretion being γ-globulin. It is known that antibodies are globulins. Subcutaneous injection of an antigen leads to formation of antibodies in the local lymph glands in the form of γ-globulins. Further injections of larger doses of the antigen overwhelm the lymph glands and some other organ would come into play with the production of different kinds of antibodies, e.g. γ_2-globulins.

3. *Hypersensitivity Reactions.* Symptoms are not produced by noxious agents, but by the reactions of the body to those agents. Thus malaise, fever, pain and local inflammation are defensive reactions. In certain conditions, such as the allergic and rheumatic group of diseases, the body's reactions are out of all proportion to the severity of the attack and this gives rise to a "hypersensitivity" reaction. If this reaction can be abolished the disease will be "cured." A.C.T.H. and cortisone "block" hypersensitivity reactions possibly by liberating antibodies or eliminating histamine, and therefore produce remarkable effects in "hypersensitivity" diseases.

Effects on Fibrous and Connective Tissues. A.C.T.H. and cortisone lead to absorption of fibrous tissue so that the capsules of caseating tubercles, for instance, may be destroyed with liberation of the tubercle bacilli. Thus the effect may be disastrous if these compounds are used in the presence of granulation tissue barriers. The combination of cortisone and an effective antibiotic, however, might cure tuberculosis. Unfortunately, cortisone seems to mask the effect of streptomycin. This dissolusion of fibrous tissue

may however be beneficial in inflammatory diseases of joints and in certain "collagenoses," such as scleroderma, dermatomyositis, lupus erythematosus and polyarteritis nodosa. It is of interest that in the presence of A.C.T.H. or cortisone, granulation tissue does not develop following trauma or surgical incision of the skin. Indeed this might be employed as a useful "screening" test for compounds with cortisone-like action, by making an incision through the skin of the flank of a rabbit and refraining from sewing it up. If the test compound had cortisone-like properties no granulation tissue would develop.

Reversal of Local Reactions to Bacterial Invasion. Under the influence of cortisone or A.C.T.H. abscesses may be completely absorbed, though the bacteria responsible for their formation are not destroyed. Thus in a case of pneumonia, "lungfulls" of pus were absorbed and the patient's temperature and symptoms resolved, though he still showed a pneumococcal bacteriaemia.

Reduction of the Sedimentation Rate. This is a constant occurrence in cases of rheumatoid arthritis and other conditions in which it is raised, following cortisone or A.C.T.H. administration.

Reduction of permeability of synovial membrane. The normally unrestricted and painless movements of joints depends largely on the presence of adequate amounts of synovial fluid. Increased permeability of the synovial membrane leads to seepage of this fluid with painful restriction of movement. A.C.T.H. and cortisone reduce the permeability of the synovial membrane and this has been made the basis of another "screening" test for cortisone-like compounds. Administration of hyaluronidase or deoxycorticosterone acetate in an experimental animal, *e.g.*, the rat, leads to arthritis. Injection of a dye into the joint cavity at the same time as administration of a compound being tested for cortisone-like activity, allows one to measure the time it takes for the dye to appear in the urine and thereby indicates the efficacy of the drug in reducing the permeability of the synovial membrane.

Clinical Disorders Treated With A.C.T.H. and Cortisone

Rheumatoid and Allied Disorders. While there can be no doubt that the credit for opening up this vast new field of therapeutics is due to Hench and Kendall, the former for searching for the reversible factor found in pregnancy and jaundice, and the latter for suggesting cortisone as a likely factor in pregnancy, there is now an astounding variety of conditions to which attention must be directed. Rheumatoid arthritis responds specifically to A.C.T.H. and cortisone, acute cases reacting more dramatically than chronic cases. It is thought that there is always some permanent improvement, in that the patient reverts after a course of treatment to an earlier phase of the disease. *Still's disease, rheumatic fever* and *rheumatic carditis* have also been shown to respond favourably.

Disorders of Lymphoid Tissue. Acute leukæmia has shown remission in a number of cases, in some of which the treatment has been life-saving. There has been diminution of the size of the spleen and lymph glands in cases of *chronic lymphatic leukæmia, lymphosarcoma* and *Hodgkin's disease.* There is one extraordinary report of a *nasal polyp* vanishing completely in a couple of days.

Hypersensitivity and Allergic Disorders. Long-standing cases of chronic *asthma* have been reported to react favourably with long periods of remission. *Hay fever* responds immediately. *Psoriasis* is relieved, and cases are reported of exfoliative dermatitis due to *iodine sensitivity*, and giant urticaria, joint pains and fever resulting from *penicillin sensitivity* showing immediate remission.

Collagen Disorders. Life was saved in a terminal case of *lupus erythematosus*, and remissions have been produced in cases of *dermatomyositis, scleroderma* and *periarteritis nodosa.*

Other conditions reported on have been ulcerative colitis, eosinophilic diseases, pneumococcal lobar pneumonia and atypical virus pneumonia. In the majority of these conditions A.C.T.H. has been employed and the cases were reported at the Armour's A.C.T.H. Conference in Chicago in October.

Relapses. Though there have been some reports of permanent "cures," such as the terminal cases of lupus erythematosus and acute leukæmia and

some of the hypersensitivity disorders, as well as in a few cases of acute rheumatoid arthritis, relapses usually occur when treatment is discontinued. It has been suggested that the initial relapses may be severe and very distressing. but it is thought that if the patient is submitted to repeated short courses of treatment, remission gradually becomes more marked, and that this may therefore become the most satisfactory mode of treatment to avoid unpleasant side-effects.

Side-Effects. On the whole the present tendency is not to take these too seriously. Many have found them negligible and it has been said that if one had not read up Cushing's Syndrome as a student one would not have noticed them. Few have been encountered that were not reversible on discontinuing treatment. In considering the possibility of development of psychotic states they are thought to depend on dosage. In the first stage there is euphoria, and some workers have described how the patient stays awake all night planning his future life now that he is relieved of his symptoms, falling asleep in the early hours of the morning from sheer exhaustion. Euphoria appears consistently only with doses of cortisone less than is normally used. The next stage, with higher dosage schedules, is irritability, and the further stage, with still higher doses, is depression. If doses of Armour's A.C.T.H. of 80-100 mgm. daily are used, which some consider to be over-doses, psychoses are encountered requiring insulin treatment or E.C.T. "Cushing-like" signs have also been observed, such as full-moon facies, hirsutism, hypertension and striæ.

Relationship Between A.C.T.H. and Cortisone

The effects produced by these two compounds are almost indentical, which is surprising when one considers that other active princples, such as the deoxycorticosterone-like factor in the amorphous fraction, are produced under the influence of A.C.T.H., in addition to cortisone. There is however some suggestion, from a histochemical study of the cortex of the rat, that there is an inner zone which responds to A.C.T.H. by producing cortisone, whereas the outer portion contains a deoxycorticosterone-like substance which is independent of A.C.T.H. stimulation.

One point of difference between A.C.T.H. and cortisone is that the former being a protein compound derived from another species (hogs' pituitaries) produces antibodies when administered to human patients. This antibody reaction is masked by the natural cortisone produced from the patient's adrenals under the stimulus of the A.C.T.H. Owing to this antibody formation, however, further administration of A.C.T.H. tends to prove less effective and there is therefore a tendency to relapse.

Behaviour of the Deoxycorticosterone-like factor.

In the course of his studies of the General Adaptation Syndrome, Selye had made the observation that administration of deoxycorticosterone acetate would give rise to various diseases of adaptation such as periarteritis nodosa, nephrosis, rheumatic carditis and rheumatoid arthritis, and it was therefore a matter of surprise that A.C.T.H. should not only not produce these conditions, but apparently should actually cure them. Recently Selye has produced a severe form of arthritis in rats by injection of formalin in the neighbourhood of the joint. Simultaneous administration of deoxycorticosterone acetate aggravated the arthritis, while simultaneous administration of cortisone or purified A.C.T.H. afforded the rat complete protection and the arthritis did not appear. This suggested that there may exist in the adrenal cortex two hormone systems which normally balance one another, but which may become unbalanced, on the one hand leading through excessive deoxycorticosterone-like activity to certain diseases of adaptation, while on the other hand, through excessive cortisone-like activity, Cushing's syndrome might be produced or rheumatoid and allied conditions might be relieved. One difficulty however of this theory was that deoxycorticosterone as such, has never been identified in the adrenal cortex, and indeed if it is perfused through the gland, only cortisone appears in the perfusate. There is however a substance, Reichstein's Compound S, which has been isolated from the cortex. This compound bears precisely the same relation to cortisone as deoxycorticosterone does to corticosterone, that is, it has lost the substituent at the 11-carbon atom. In the case of corticosterone this is a hydroxyl group (hence deoxycorticosterone) :

in the case of cortisone it is a ketone group. Thus Compound S may be termed "deoxocortisone." Experiments made by Selye with this compound on castrated and unilaterally nephrectomised rats showed that it produced exactly the same lesions as administration of deoxycorticosterone, namely, hypertension, nephroscelerosis, myocarditis, encephalopathy and periarteritis nodosa.

Deoxycorticosterone acetate and ascorbic acid. In view of the apparent establishment of this balance between the 11-deoxy- and the 11-oxy-steroids it was surprising to read the report of Lewin and Wassén of Gothenburg, who claimed to have obtained complete relief in cases of rheumatoid arthritis within 15-30 minutes after the intramuscular injection of deoxycorticosterone acetate followed immediately by the intravenous injection of 1 gm. of ascorbic acid. This has lead to a lively controversy, some workers failing to observe any changes whatsoever, others confirming the findings of Lewin and Wassén. It has been suggested that better results are likely to be obtained in ambulant patients (out-patients) than in in-patients who have already achieved a considerable degree of relief following bed-rest. Fox is of the opinion that the only cases likely to respond are those associated with loss of weight, depression, vasomotor disturbances and loss of locomotor power, due not only to pain but to intrinsic muscle wasting. It has been postulated that the divergence of results may have been due to the actual technique used in the administration of the deoxycorticosterone acetate, which has to be available in the muscle when the wave of intravenous ascorbic acid reaches it. This necessitates true intramuscular injection with the needle piercing the skin vertically, instead of injection into the subcutaneous fat, if the needle pierces the bunched-up skin obliquely. Spies and Stone observed no effects from the injections in patients on a low salt diet. Le Vay and Loxton claim to have shown that the effect of these two compounds is exerted peripherally and not through the intermediation of the adrenal cortex. Compressing the thigh in a patient with arthritis of both ankles, by means of a sphygmomanometer cuff at a pressure of 100 mm. Hg., which they believe will obstruct the venous blood and lymph flow, but not the arterial blood flow, they injected deoxycorticosterone acetate into the calf muscles of that leg and the ascorbic acid intravenously into an arm. They observed rapid response in the ankle below the cuff, and later a response in the other ankle when the cuff had been released. They now give ascorbic acid and deoxycorticosterone glucoside intravenously as a single combined injection. They advocate the use of deoxycorticosterone and ascorbic acid in cases in which a joint has become stiff and painful following an injury, claiming that a single injection permanently relieves the symptoms. Blackburn and Burke found that deoxycorticosterone acetate and ascorbic acid produced no lowering of eosinophil or lymphocyte levels, so that any effect they may exert cannot be through the pituitary-adrenal pathway leading to production of A.C.T.H. and cortisone. Landsberg postulated that the effect may be brought about by conversion of deoxycorticosterone to a cortisone-like substance through the "redox" action of ascorbic acid, and wondered whether other steroids could be similarly converted. Using testosterone 25 mgm. or progesterone 2 mgm. plus ascorbic acid, he claimed to get similar results as Lewin and Wassén with deoxycorticosterone acetate and ascorbic acid. He found œstrone less active, and dehydrocholic acid completely ineffective in combination with ascorbic acid. Hallberg, speculating whether the effect of the ascorbic acid was to oxidise the deoxycorticosterone, substituted another oxidising agent, namely methylene blue, which he gave in doses of 8 c.c. of a 5% solution intravenously. It caused a bitter taste immediately after the injection and pronounced cyanosis which disappeared in a few minutes. He claims to have obtained exactly similar results to those of Lewin and Wassén. Long had shown in 1947 that administration of A.C.T.H. led to a diminution in the amount of ascorbic acid and cholesterol in the cortex and Hallberg suggested that the hormones isolated from the cortex may be regarded as oxidation products of cholesterol. Brownlee has approached the problem from a rather different angle. Using Selye's formalin arthritis technique he compared the effects of deoxycorticosterone acetate and ascorbic acid in combination and separately in both normal and adrenalectomised rats. In adrenalectomised animals least inflammation was produced by the combination, whereas each compound separately produced about equal degrees of inflammation. In the normal animal, the two compounds in combination

completely protected the animal from arthritis whereas ascorbic acid gave rise to slight degrees of inflammation and deoxycorticosterone acetate aggravated the arthritis. He interprets these results as indicating that deoxycorticosterone and ascorbic acid form an effective substitute for the naturally occuring anti-arthritis steroid hormone, in the absence of endogenous cortical hormones. May they be components of an essential enzyme system? Must deoxycorticosterone first be changed chemically (reduced?) by ascorbic acid before it is effective. In the intact animal deoxycorticosterone aggravates the arthritis. Does this mean that unaltered deoxycorticosterone competes with the natural anti-arthritic steroid as a "building unit" and thus gives rise to "competitive inhibition"? In this connection Brownlee notes that 5 mgm. doses of deoxycorticosterone acetate in the hands of Lewin and Wassén led to complete relief, whereas 10 mgm. doses used by Spies and his colleagues gave no relief. Brownlee thinks that ascorbic acid probably takes part in the biochemical reaction in which the natural anti-arthritic steroid is involved: the blood concentration of ascorbic acid is low in rheumatoid arthritis and administration of even large doses of ascorbic acid lead at best to delayed increase in the plasma ascorbic acid levels and in some cases did not alter these levels at all.

THERAPEUTIC EFFECTS OF OTHER STEROID COMPOUNDS

We, in this country, where no cortisone and practically no A.C.T.H. is available for clinical use, have naturally turned our attention to the clinical "screening" of other compounds which bear some relation to the chemical structure of cortisone and are more easily produced for clinical use.

Progesterone. Bearing in mind the observation which impressed Hench so much, namely that rheumatoid arthritis frequently improved during pregnancy, progesterone was an obvious compound to investigate. It is true that its closest structural relative is deoxycorticosterone which Selye has shown to produce arthritis; nevertheless it might undergo metabolic changes which might render it anti-arthritic. Marrian and his colleagues have shown, for instance, that there is some abnormality of progesterone metabolism in rheumatoid arthritics, who excrete greater quantities of pregnanediol after administration of progesterone than do normal individuals. Our group (Bishop, Copeman Dodds and Savage) found that in one patient with rheumatoid arthritis at one time showing clinical improvement with progesterone, whereas on another occasion she showed no improvement, the excretion of pregnanediol was considerably lower when a clinical response occurred than in the period when it did not occur. This suggests, in agreement with Marrian's results, that the rheumatoid arthritic has difficulty in utilising progesterone, but that if he does succeed in doing so there may be clinical remission. We were impressed with the large doses of cortisone used by Hench, 100 mgm. compared with doses of 5-20 mgm. of progesterone commonly employed in gynæcological therapy. We therefore determined to investigate the effect of 300-500 mgm. daily. So far, apart from the one spectacular result referred to above, we have had no success. Alexander and Duthie also obtained negative results in five cases treated for fourteen days with 100-200 mgm. daily. There was no fall in eosinophils.

Combinations of Oestrogens and other Steroids. Continuing to bear in mind the remissions which occur during pregnancy, it might be interesting to investigate the effects of combinations of œstrogen, progesterone and chorionic gonadotrophins. This has not yet been done, though Ishmael, Hellbaum, Kuhn and Duffy are reported by the New York Times to have tried other combinations, and to have obtained encouraging results. Testosterone propionate was given intramuscularly in 100-300 mgm. doses, and when the clinical improvement declined, œstradiol benzoate, 0.033 mgm. was given daily, and finally pregnenolone, 100 mgm. daily was given with reduction in the sex hormone doses. The technique seems complicated and there is little indication that the results obtained justify a serious consideration of the underlying rationale.

Pregnenolone. This is a relatively easily produced steroid, which is therefore the basis of certain partial syntheses of more complex compounds. The Medical Director of the American Schering Corporation is reported to have claimed that fifty out of one hundred arthritic patients obtained relief from its administration. It can be obtained cheaply from cholesterol or from plant

sterols, such as phytosterol and stigmasterol, which may be extracted from soya bean.

21-*aceto-oxy-pregnenolone*. ("Artistone"). This compound has recently received considerable attention. Marker and Applezweig tested several hundred North American plants and found many to be rich sources of the steroid sapogenin. One of these was the Mexican Yam. Marker discovered another Mexican plant with four times the yield of sapogenin as the Yam. Seifter "screened" fifty compounds with his dye-excretion test, which has been referred to above, and found eight which were promising, one being "artistone." Fifteen patients were treated with this compound with 80% favourable results in mild and acute cases. No response was obtained in chronic cases. It is thought that the effect is peripheral, and not through the adrenal cortex, and it is therefore unlikely that undesirable effects would occur.

Testosterone. Only a few reports have been received of the effect of testosterone propionate or methyl testosterone. So far the results obtained are not impressive.

Conclusions

The two outstanding conclusions from the first year's work are that cortisone and A.C.T.H. still remain supreme and specific and that the therapeutic field has expanded, as one predicted it would, but that the expansion has been even more spectacular than one could have imagined a year ago. This is undoubtedly a subject which everyone interested in medicine and its numerous specialised branches cannot afford to ignore. Incidentally, it may well put clinical endocrinology on the map as an essential speciality. What is clear is the need for teams of workers, physicians, dermatologists, endocrinologists, pharmacologists, biologists and biochemists who can mutually interpret the rapidly developing aspects of this fascinating new speciality.

No references are appended. Most of the reports referred to have appeared in *The Lancet* and the *British Medical Journal* during the past year. I should like to express my appreciation to the Earl of Halsbury for permitting me to make use of certain letters written by him to Professor Dodds during the course of a recent tour of America, in his capacity as managing director of the National Research Development Corporation. Such information from this correspondence which I have used must be regarded as "impressions" which may need subsequent confirmation.

March		**ACADEMIC**
28th.	5.00.	Professor Sir James Learmonth, K.C.V.O., C.B.E. F.R.S. Inaugural Carbutt Memorial Lecture. "The Pathological Physiology of Gangrene of the Extremities." Physiology Theatre.
30th.	1.00.	Sir Heneage Ogilvie. Clinical Lecture.
	4.30.	X-ray Meeting. Gordon Museum.
31st.	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.
April		Exhibition. Surgical Department. "Breast Cancer."
1st.	10.00.	Mr. A. J. Gardham, University College Hospital. Surgical Departmental Round. Clinical Theatre.
3rd.	1.00.	Mr. Law. Clinical Lecture. "Ocular Therapeutics."
4th.	1.00.	Dr. Helliwell. Clinical Lecture. "Analgesic Drugs."
6th.	4.30.	X-ray Demonstration. Gordon Museum.
March		**SPORT**
29th.		Association Football. Hospital Cup Final.
April		
1st.		Rugby XV *v.* Richmond. (H.O.P.).
		Association Football 1st XI *v.* Old Latymerians. (Away).
		Association Football 2nd XI *v.* Old Latymerians. (H.O.P.).
		Hockey 1st XI *v.* Westcliff. (Away).
		Hockey 2nd XI *v.* Westcliff. (Away).
		Hockey 3rd XI *v.* Westcliff. (H.O.P.).
8th.		Association Football 2nd XI *v.* Reigate Priory. (H.O.P.).
		Hockey 1st XI v. Croydon Gas Co. (H.O.P.).

HUNT'S HOUSE.—4.30 a.m., 7th March, 1950.

"A" Bomb Burns

By PATRICK CLARKSON.

(*concluded from page* 94)

5. LOCAL RADIATION BURNS.

1. Dosage and type of radiation.
2. Typical course and effects—delayed but persistent vesiculation and persistent pain.
3. Pathology.
4. Treatment.

Alpha and beta particles being of poor penetration may burn at relatively low dosages 100r or less. "Soft" X-rays produce skin vesiculation at somewhat higher dosages, and "hard" X-rays and gamma rays at 1,000 to 2,000r. Time of exposure, fractionating the dose, area, thickness and moisture of skin, all influence the result.

It is impossible to distinguish between alpha and beta burns, or burns from "soft" X-rays. In the later phases the deeper slough and scarring will distinguish gamma burns from alpha and beta burns, but the early skin response may be indistinguishable. The features which distinguish ionising radiation local burns clinically from thermal burns are the delayed but persistent vesiculation (onset in 2-3 days and lasting 4 to 5 weeks, c.f. onset in 2-3 hours and lasting 2 days in thermal burns), the persistent pain which may last 4-8 weeks, the delay in healing (for a given affected area and depth of burn) due to slow and repeated slough separation and slow marginal in-growth. The end result is a dense dermal and/or subcutaneous fibrosis and a thin atrophic unstable epithelium. In the course of years this has a strong tendency to break down and the ulcer so formed a strong tendency to malignant change.

Fig. 5.—THERMAL BURNS. Thermal burns in child, 60% of body surface involved; including full thickness skin loss of whole of back, buttocks, parts of thighs, calves and arms. This patient was gravely ill for a period of 6 to 8 weeks before primary resurfacing by free "sheet" grafts of split skin was completed. During this period she had over 20 pints of blood and plasma and 8 operations. These operative interventions were combined excisions of sloughs and grafting operations. The photo was taken when substantially healed, between seventh and eighth operations. (Primary treatment undertaken by Mr. Pullen and Mr. Hanbury of St. Stephen's Hospital, Fulham).

TREATMENT. Primary treatment of X-ray burns is as for thermal burns. Most X-ray burns of the skin need later replacement by free graft or by local flap.

TIME OF EXCISION AND TYPE OF TISSUE REPLACEMENT. This can be a most difficult problem. It is my belief that skin which vesiculates for more than a day or two after radiation has at best a poor functional future—this quite apart from the disability and pain it can cause for several weeks. If the radiation has been by alpha, beta particles or soft gamma radiation, an early excision and free graft replacement can be done. When the burn is due to hard X-ray or gamma radiation, the subcutaneous tissues and deeper structures have been affected and may be unsuitable for cover by free graft. It can be extremely difficult for several weeks to say to what depth the excision should be taken. Nevertheless, I think that excision of affected tissue should not be unduly delayed—that is to say within the first three weeks an excision is done and appropriate cover by pedicle flap is provided for those cases where the excision leaves a base of bare bone or tendon unsuitable as a recipient bed for a free graft cover.

6. SOME PHOTOS INDICATING MODERN TREATMENTS OF THERMAL BURNS, INCLUDING BURNS WITH FRACTURES AND KELOIDS.

All extensive and deep burns can be described as passing through three phases :

1. PRIMARY PHASE—of about one week ; treatment comprises the preservation of life by maintenance of circulation, and the prophylaxis of infection.
2. HEALING PHASE—a variable period which is ideally less than six weeks ; treatment comprises surgical separation of dead tissue and the provision of primary skin cover.
3. PHASE OF RECONSTRUCTIVE SURGERY AND/OR REHABILITATION. For severe hand and face burns this may mean 20-30 operations over 2-3 years.

The photos indicate the cost in time, operations and material involved in treatment of such burns.

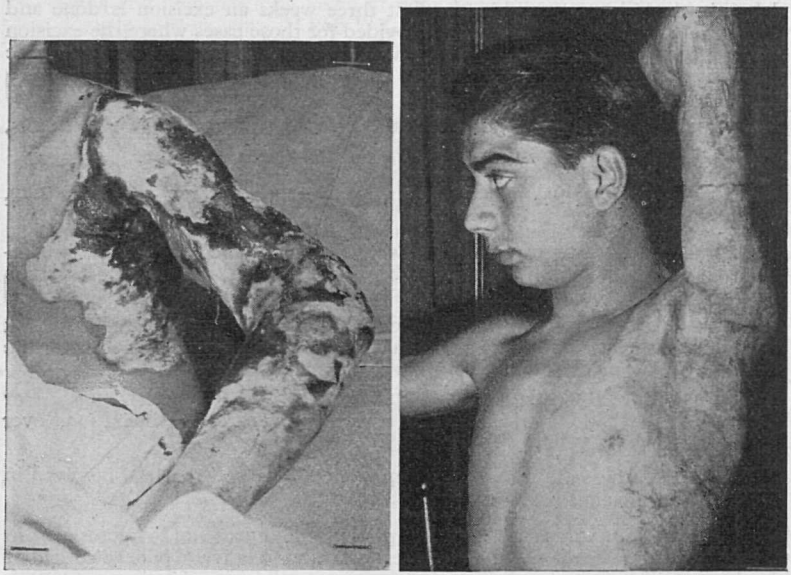
BURNS AND FRACTURES. Relative priority of burns and fractures ; in early phases treatment of burns comes first and relatively poor position of the bones can be accepted—except for spine and femur fractures. POP is probably the best fixation in combined cases. The marknagel has a possible role in selected cases. Note the adverse influence of diffuse ionising radiation on the course of burns and fractures.

KELOIDS. The keloids seen in Japan were probably an effect of infection in thermal burns in Japanese, rather than a radiation effect.

I can make no attempt at a comprehensive coverage of this important subject, but will show some photographs (a few of which are reproduced here) to draw attention to the prolonged nature of the treatment necessary in all extensive deep thermal burns and the heavy demands they make on the medical services. All aspects of treatment can be expected to be more difficult when diffuse ionising effects are present in the burnt patient.

The primary treatment comprises the preservation of life by maintenance of the circulation, and the prevention of infection by local toilet and antibiotics A case of 60-80% body surface burn, with parts of it full thickness skin loss in depth, might well need 20-30 pints of blood and plasma in the first two weeks, and more later, if the patient is to survive (today no burn is regarded as automatically fatal while the patient still lives). The primary toilet and application of dressings and bandages may be a matter of 1 to 2 hours, and have to be repeated in 7 days or earlier. Some simplification of methods of toilet and of dressing is much needed. In all burns with heat coagulation of the full thickness of the skin, and deeper, the healing phase is one of active surgical intervention—of sloughectomy and of a primary skin surface by free grafts and occasionally by flaps. I will not dwell further on this phase, which

may last 4 or even 8 weeks even under favourable circumstances, other than to make the reminder that this is relatively specialised work, that experience in it is not diffuse, nor becoming more so with civilian cases being referred more and more to plastic units (whose training capacity is limited by the fact that these units are sited at a considerable distance from teaching hospitals). An important aspect of thermal burns from Zone 3 will be this, that for the first 2 to 5 weeks many of the patients would also be suffering from leucopenia. Under these circumstances infection of even small burns and wounds is invasive ; and the hæmorrhagic tendency will manifest itself in every surgical intervention, possibly in every injection ; that is unless some effective means is discovered of arresting this syndrome of acute radiation illness within the first week or two.



Figs. 7 and 8.—THERMAL BURNS. 10% to 15% body surface affected with charring of skin, fat and muscle on left forearm, arm axilla and side of trunk, including ulnar nerve and elbow joint capsule. This patient had 8 operative interventions and 30 pints of blood and plasma over a period of 8 weeks before primary resurfacing was complete (Fig. 7). Sheets of split skin graft were applied at the same operation as the sloughs were excised. The alternative method of " patch grafts " of split skin is simpler ; but cannot give as good an end result, particularly in axilla and cubital fossa. (Primary treatment by Mr. Ferraby and Mr. Rose of St. Charles Hospital, Ladbrooke Grove).

7. Recent Work in Burns Problems.

Plasma Substitutes. Dextran etc.

Primary Burns Dressing. Nylon envelopes ; Exposure.

Skin Banks. Problem of homografts and their possible role in irradiated patients. Refrigeration of skin in storage.

Skin Graft Cutting. Simplification by the Brown Electric Dermatome.

Graft Fixation. Need of better biological glues.

Plasma Substitutes. An efficient plasma substitute is needed regardless of any plan to cope with 'A' bombs, but very especially in such plans. Attention is drawn to Dextran, a polysaccharide described by Squires, Bull, Mollison and others. It is non-toxic, non-antigenic and non-pyrogenic. It is, however, not a protein substance and not therefore a complete replacement of lost protein. Its late effects and fate in the body, too, are not completely understood. It is a useful plasma substitute, but by no means an ideal one.

PRIMARY BURNS DRESSING. Mention has already been made of the nylon envelope which is a water-vapour permeable and water-fluid impermeable transparent material, (introduced by Bull and Squires). Some type of envelope such as this, issued for different parts of the trunk and limbs and made in standard sizes would greatly shorten and simplify the primary dressing problem. The toilet might be limited to insufflation (power driven) by a mixture of antibiotics combining the widest known range of antibacterial action. Simple exposure of superficial burns (as described by Wallace) in open country wards or rooms such as used for T.B. or orthopædic cases might be a valuable routine, after evacuation.

8. CONCLUSION.

Any consideration of the subject of 'A' bombs is an extremely sobering one. but I wish to confine myself to the burns problem. I have tried to show, particularly by the pictures of cases, the exacting demands on medical supplies and on time of all medical personnel that severe burns make, principally through the numerous and repeated operations, the constant ward care and special facilities, which are necessary to obtain results which are adequate by modern standards. Unless these patients get a consistently high standard of nursing and medical attention unnecessary deaths, suffering and disability occur. I have on occasion, with Mr. Lawrie, had clinical responsibility for an Army Burns Centre, dealing with numbers small to what we are considering—the primary treatment of 50 cases in 24 hours ; the care for many months of up to 90 pre-eminently serious burns at one time, during their grafting and healing phases ; and of just on 1,000 serious burns in 2 years. Even with these relatively small numbers my memory is of the difficulty (in fact to me the impossibility) of maintaining proper standards ; such is the demand on the time of all concerned that these cases make if the result is to be a reasonable one. This experience is well short of any real knowlegde of the care of 'A' bomb burns in mass ; but I mention it as support to views that I express in connection with planning for the care of such casualties.

I would stress again the fact that our subject this afternoon has wide applications to peacetime practice in which radiation and thermal burns increasingly provide serious problems for the surgeon and others. But it is chiefly with its wartime implications that we are concerned. Medical plans for such a contingency must be made, and can be made in the certainty that they can effect very great saving in life and suffering, compared at least to Japanese experience.

On the clinical side the great need is for simplicity and speed in treatment. In the primary phase a simplified and improved primary dressing and efficient blood and plasma substitutes are needed. Nylon envelopes and dextran to some limited extent already supply these needs. In the later phases of treatment a difficulty is the limited medical personnel trained in the management and grafting of severe burns. More of these cases should be retained now in teaching hospitals, rather than sent to distant plastic units, where students and general surgical trainees do not see them. Indeed much more of the reparative techniques of plastic surgery should be incorporated in general training.

The treatment of those who have been exposed to a lethal dose of radiation is still a research problem only. But their management is a practical problem. They must be sorted from those exposed to lesser amounts, for whom precious supplies may be used with some hope of effect.

A reasonable system of triage, the manufacture of suitable supplies in quantity and their dispersal, plus the dispersal of medical personnel, general training of the public in treatment of minor wounds and burns, and of doctors in the techniques necessary in primary treatments, and an increased supply of surgeons trained in the reparative techniques needed in primary resurfacing of deep burns, are some obvious parts of any medical plan to care for casualties from 'A' bombs.

Finally I think it most important that no wide administrative changes affecting the medical profession should be introduced in these plans which might impair the efficiency of the Services. There are no administrative

changes which could in truth be pressed on the Government as in themselves likely to make the treatment afforded to mass casualites correspond to that expected for individual cases in peacetime.

Those who took part in the discussion which followed include Brigadier Harsant, Consulting Surgeon to the Army; Sir Ernest Rock Carling; Brigadier Sachs, Consulting Pathologist to the Army; Mr. Rainsford Mowlem, Plastic Surgeon to the Middlesex Hospital; Lt. Col. MacDougal, Reader in Military Surgery, Millbank; Mr. Ronald Furlong, Orthopædic Surgeon to St. Thomas's; Dr. Bull, Deputy Director of the M.R.C., Burns Research Unit and Mr. Butterworth of the Army Burns Research Unit.

Space prevents publication of references, of which over 60 have been drawn on for the material described above.

I have drawn particularly on and am especially indebted to :—

Medical Aspects of Atomic Warfare, A.M.D.7 1948
Pathology of Atomic Bomb Casualties
Liebow, Shields Warner and De Courcey, American Journal of Pathology, Vol. XXV No. 5 (from which figs. 1 and 2 have been reproduced here by kind permission of the Editor).

CORRIGENDA.

Issue March 11th, 1950 **'A'-Bomb Burns**

1. Page 90 : for " bomb exploded at 15,000 ft.," read " bomb exploded at 1,500 ft."
2. Page 93, fig. 4 : for " died of amnia," read " died of anuria."
3. Page 94 : for lines 22-24 read " If we could develop means of controlling the antigen—antibodyresponses of the body to foreign tissues, then heterogeneous grafts (of skin as well as of hæmatopoietic tissues) would become a practical and possibly successful treatment."

About the Park

Guy's is well known for its humane and common-sense treatment of patients. If old Tom Smith is accustomed to having three fingers of rum every night—by all means let him carry on while he is in bed. If Mary Jones' condition is improved by her thinking the Houseman has fallen in love with her—by all means let her believe it so. Whatever happens we do not annoy the patients by telling them to suppress their silly notions.

We have in the wards recently a Scotsman who also happens to be an old sailor. His present complaint is immaterial, but for some years he has been troubled by a number of pirates who continually persecute him. We presume they were the usual fierce sort of pirates one sees in the adventure books, and on the whole they give this chap a pretty hard time. Secretly of course we think this is a lot of nonsense. However we cannot help wondering what this sailor's thoughts were when one afternoon a group of men approached his bed—headed by a physician with a black patch over his eye and a houseman with a wooden leg.

In days gone by the present position of Guy's Hospital was occupied by a real " Maze " and a real " Pond " where the Stuart Kings used to have fun and frolics. They even moored their sailing boats in the pond which had an outlet into the Thames.

Guy's House, as we all know, is a fairly big sized building and before it could be erected a large number of piles had to be driven into the pond and marshland beneath it. Ever since then Guy's has rested firmly and sedately upon these piles. We feel sure that had a certain assistant surgeon—well known to the present generation—been on the staff many years ago the matter would have been rectified.

More news of our excellent Works Department. They have recently built in Wilks ward a very nice, neat little cubicle for semi-private patients. This must be very satisfactory for the woman who can't quite afford Nuffield fees and wants a little more privacy than a big ward. Unfortunately the door of this cubicle is too narrow to admit a bed without turning it on to its side ! As this must be most upsetting to the patients we hope they aren't charged extra for being lifted back into bed.

The Third Journey

By DAVID STAFFORD-CLARK
Massachusetts General Hospital, Boston, Mass.

WITH the ending of 1949 came also the end of my first six months in America and the end of the whole time appointment in the Department of Neuro-Psychiatry which I had held from the beginning of July. I was free now to plan and carry out a programme for the rest of the year which would combine further clinical work with research and travel, both professional and for pleasure. I had decided to set out almost immediately on an extensive expedition which would take me into Canada, across the United States to the extreme south-western tip, perhaps into Mexico, then returning northward via San Francisco and directly eastward from here across the continent via Chicago, Washington and Philadelphia to New York and thence back to Boston. The route was in the shape of a giant figure of eight and spanned a distance of almost 10,000 miles; it was designed to enable me to visit the greatest possible number of important clinics and universities in the great cities of Canada and America and would take me across the Northwest, down through the Middlewest and then out along the old Santa Fé trail to the Pacific at the furthermost point of my journey.

The professional side of this undertaking promised, and subsequently proved, to be so replete with detail and interest that with some reluctance I have felt bound to forego the temptation to include any description of it in these articles. The wealth and variety of activity in professional centres which a traveller who keeps his eyes and ears open, and as far as possible shirks no opportunities, is bound to encounter, suffers only a valueless mutilation unless accorded both the space and focus in presentation which it deserves. This account deals, by request, with travel and the adventure of meeting people. The academic gains of the expedition must await another outlet.

I set out from Boston at 9 a.m. on Thursday, January 5th, bound for Montreal on a train bearing the somewhat imposing title of "The Alouette". The practice of naming trains has an altogether different significance in America from that which attaches to it in England, and here lies one of the many interesting points of separation between the American and British approach to life. Indeed, this particular instance forms quite a characteristic example of a divergence in practice to which the Englishman in America has to become accustomed. This is the tendency for Americans to give all things American a definitive label which, to English ears but not to the American, carries the implication of especial importance. In England only the crack trains have names; in America, practically all trains enjoy this distinction. Further examples are not far to seek: Americans refer perfectly naturally to all men who have served in the American Forces, however briefly or ingloriously, as "veterans"; to an Englishman this seems an overstatement for any but a grizzled warrior. But it is again important to realise that the initial significance of the term for Englishmen is not shared by Americans. To them, "veteran" is synonymous with "ex-serviceman," although they do not use the latter term. Again, American doctors are M.D.'s on graduation, and the courtesy title of doctor is accorded as a matter of routine to fourth year students in the wards. The first impression made by all this on an Englishman tends to be that Americans promote themselves and their gadgets to a level where final distinction is meaningless; but the injustice of this criticism lies in its superficiality. Our own habit of deliberate understatement seems at first just as baffling, and sometimes even carries an implication of underlying arrogance, when seen through American eyes. Moreover they are accustomed to this use of impressive labels, and while not accepting them at their face value, regard them as a spur to endeavour. On the whole, most of the trains in America do deserve names; it just so happened that "The Alouette" was one of the few which did not.

Nonetheless, it was a pleasant, if far from rapid journey through country which steadily became more mountainous until we were riding between wooded slopes interlaced with frozen lakes and rivers. There had been very little snow up to this point, and in Montreal, none; a most unusual thing for the

time of year, I was informed. My informant was a coloured porter who took my bags from the train. He was the second Canadian to whom I had spoken since leaving Boston, the first being the Immigration Officer at the border, who had spent three years in the R.C.A.F. in England during the war and discoursed with me most amiably on the subject. I had no opportunity of acquiring any small change in Canadian currency, and upon offering my porter a tip, I apologized for this.

" Lawd bless you suh," he replied. " Don' you worry 'bout dat. You sho givin' me de best money in de world !" I gave him a wan smile.

I awoke next morning to see snow falling heavily. Throughout that day, which I spent in visiting the Allen Memorial Hospital and the Montreal Neurological Institute, the snow continued to fall at the rate of almost an inch an hour. Periodically small avalanches cascaded from the sloping roofs of buildings into the street. My friends rubbed their hands in glee.

" It's come at last," they said. " Now perhaps it will really get cold." I fought my way through the blizzard to buy ear muffs, a skiing cap and a magnificent pair of overshoes. They proved invaluable items of equipment. Later in my stay in Montreal I had the supreme good luck to spend an hour and a half in the company of Professor Hans Selye at the Université de Montreal. I achieved this with no more preparation than a telephone call on the Saturday morning when it appeared that the Professor had gone to work alone and was most charmingly disposed to devote most of his morning to a visitor from England.

On the following day I left Montreal for Toronto on an early train, whose name I forget, stopping off at about midday in Kingston, Ontario, to visit an old colleague from the Maudsley Hospital who has since established himself as Assistant Professor of Medicine in the Department of Neurology there. He met me at the station with his small son, both of them standing out in the open by the railroad tracks without coat or hat. The temperature was ten degrees below freezing, forty-two degrees of frost. I myself was muffled up to the ears.

" Perhaps we should have brought coats," they said. " The Canadians think we're crazy, but they say that few Englishmen feel the cold until they have been here a year or two."

I had no excuse to offer for being so far advanced in my decline from native hardihood.

Before I resumed my journey later in the afternoon they took me for a drive along the shores of the lake, from which great banks of fog swirled and blew across the snow-covered countryside.

" It's very lovely here in summer," they said. " We usually come here to bathe. This fog is a bit of a nuisance in winter, but it stops as soon as the lake is frozen."

At the edge of the lake the waves were lapping the snow and the wind was swirling and sucking the fog through the trees. I tried to imagine bathing dresses, and turned the flaps of my ski cap down around my ears.

I stayed in Toronto with a Canadian friend whom I had known well during the war. In intervals of attending clinics, meetings and ward rounds in the Toronto Psychiatric Hospital and the Hospital for Sick children, I explored Toronto with him as guide and companion. He was particularly proud of the enormous feat of engineering which is currently being undertaken to provide Toronto with a subway. One rather startling effect of this is that some of the busiest streets, which in turn are flanked by some of the tallest skyscrapers, appear to have been completely undermined so that the cars and buses make a hollow drumming sound as they pass over them, and at intervals it is possible to peer through holes in the sidewalk and see men with lamps strapped to their foreheads cheerfully drilling away at the very foundations of the city, some twenty feet below.

Toronto is an optimistic, expanding, friendly city. The integration of its psychiatric facilities into both teaching and general hospital practice, as well as the combination of hospital and university facilities for postgraduate

training and research, are progressive and exciting. While I was there, the most popular film currently on show was " Samson and Delilah," in which Victor Mature as Samson contrives, singlehanded, the collapse of a colossal temple containing an idol with a blazing fire in his belly, by dislodging the pillars which are the key to its foundation. The citizens of Toronto appeared to enjoy this spectacle without drawing any alarming parallel with the machinations of their own subway engineers.

The next stage of the trip took me across a thousand miles of forests, lakes and prairies to Winnipeg. This was accomplished most pleasantly by air in brilliant sunshine, while below the snow thickened and the plaques of ice floating upon the surface of the lakes gave place at first to a solid sheet glistening at first green then pearly white, and later still, vanishing beneath still more snow. In the early part of the trip the distant islands of ice looked from the air exactly like soapflakes scattered upon the water. Navigation was still possible at this point, but before long the solid freezing which had already occurred further west would extend through the lakes to the borders of Toronto itself. Winnipeg is the capital of the province of Manitoba and is described by its inhabitants as the heart of the Canadian West. It is also one of the most warmhearted communities I have ever had the good fortune to visit. Here again were friends whom I had met through the war and who were determined to spare no effort to make my visit an unforgettable one. They were entirely successful. Their own circle of friends and acquaintances in Winnipeg appeared limitless and the interest displayed simply in the presence of a guest from England was overwhelming, both in generosity and enthusiasm. I found myself, all unworthy, addressing an audience of alarmingly vast proportions of the Women's Canadian Club, and on another occasion discovered that a social visit to the headquarters of the Canadian Broadcasting Corporation had involved me in an interview on the air. I also derived considerable reflected glory from the fact that Sir Heneage Ogilvie had come to Winnipeg and met many members of the Winnipeg Clinic and the University of Manitoba some weeks before. The name of Guy's stands high in Winnipeg.

From there I made my way back into the United States, and on my way down to Chicago, stopped for a few days at Minneapolis to see the work of the Psychiatric and Psychological Departments of the University of Minnesota, and at Rochester, to pay homage to the Mayo Clinic. Minneapolis can claim two features of particular interest for Guy's: the Student Health Service of the University of Minnesota possesses one of the best psychiatric and counselling departments in the world, and supplies a real need in a thoroughly sensible manner; and there works in this department a Guy's man of considerable charm, by name Dr. H. D. Lamb. I had not met him before, but we had corresponded briefly following his interest in an earlier contribution of mine to the *Gazette*. I was his guest during my stay in Minneapolis and we had several extremely enjoyable evenings in which he regaled me and several of his American colleagues with fascinating recollections and some remarkable impersonations of former Guy's personalities of the ten years preceding the second World War. He had been a dresser to Dr. R. L. Thompson; an experience which seemed as vividly preserved in his memory as though he had just completed it. In fact, after six years wartime service in the Royal Navy, he had travelled with his wife to New Zealand, and after working there for almost two years, had returned to Canada for another year before finally settling in Minneapolis. When he saw me off on the fast train to Chicago I asked his permission to refer to him in this instalment. Whatever misgivings he may have felt, he succeeded in supressing. I hope he sees no reason to regret his assent.

Chicago is a city which could command a chapter of its own in any traveller's account. I spent four days there on this occasion, the first two in a most expensive hotel where my reservation was a product of the generous estimate of some of my friends in Winnipeg who had cabled ahead on my behalf, and established a reputation of prosperity for me in advance which was totally inappropriate to my position. As soon as I decently could, I escaped into the comparative modesty of International House where, surrounded by representatives of almost all of the United Nations and elsewhere, I feverishly recast my accounts in the light of the fantastic depredations which two nights

at the rate of expenditure of an American businessman had cost me. After establishing some valuable professional contacts in the University of Chicago, and at the Bobs Roberts Hospital, I succeeded in seeing "Death of a Salesman" at the invitation of a member of the cast to whom I had an introduction from a friend in New York, and also of making the acquaintance of Professor Arnold Bergstraesser, brother of Dr. Christopher Haffner of the Department of Psychiatry at Guy's, and Professor of Germanic Literature and History in the University of Chicago.

On Tuesday, January 24th, I boarded the "Grand Canyon Ltd." in Chicago to start out on the three day transcontinental journey following the route of the old Santa Fé Trail to the Southwest, to Los Angeles and the Pacific; the route that would take me through the plains of the Middlewest, through Oklahoma, Texas, New Mexico and Arizona to Southern California. Even in these days there is something undeniably exciting and romantic about a journey of this sort, or so it seemed to me. Nor was I disappointed.

(To be continued)

Guy's Hospital Dental School Clinical Meeting

THE Annual Clinical Meeting was held in the Dental Department on Saturday, 4th March, and as usual, was the centre of interest to many old Guy's men and visitors. They were, in the first place, greatly impressed by the changes which have taken place in the Department, which has undergone internal reconstruction since their last visit, and has now been completely re-equipped to make it the most modern Dental School and Department in Great Britain.

As in previous years, the meeting lasted all day, and there were operations and demonstrations by members of the staff. Although these were mainly on traditional lines, there were many new items, and considerable interest was evinced by those present in the original film shown by the Upper Respiratory Tract Research Unit, in conjunction with the members of the Staff of the Children's Department. The value of the afternoon session was enhanced by an impressive collection of interesting clinical cases, each with notes on the history, X-ray findings, treatment, etc.

The most outstanding feature of the day was, without doubt, the employment of television both in black and white and also in colour, in the demonstration of operations. There is, of course, nothing new in the use of black and white television, but the use of colour television has never before been publicly demonstrated for this purpose. The School can regard itself as extremely fortunate in securing the loan of the only colour television apparatus in this country and is grateful to the directors and staff of Pye, Limited (Cambridge), for their kind co-operation. The camera unit was installed in a room in which the operations were taking place, on the ground floor of the Dental Department, while the five receivers were installed in a room, holding a hundred viewers, on the first floor of the Old Pathology Block behind the Dental Department. The operations of apicectomy and gingivectomy were shown and interesting clinical cases were demonstrated and those present were amazed at the clarity of the pictures and the accurate colour rendering which was obtained. These were highly successful demonstrations enhanced by well conceived introductions and commentaries. Those who took part are certainly worthy of hearty congratulation.

In the evening the Annual Dinner of the Dental Society was held at the Park Lane Hotel. Mr. Slesinger responded in his usual humorous style to the toast of "Guy's Hospital and Schools" proposed in his own inimitable way by Lord Webb-Johnson. Mr. Arthur Bulleid expressed everybody's pleasure at the presence of so many eminent visitors, to which Mr. Parker Buchanan replied. The Society's President, Mr. R. O. Holland thanked his Committee for all they had done to make this function such a success.

All Guy's men must have returned to their homes that evening with a feeling of pride in their old Hospital and School—with a feeling that they had passed a most enjoyable and instructive day culminating in an excellent dinner in the company of their friends and with a firm resolve to come again next year.

Sport

ASSOCIATION FOOTBALL

INTER-HOSPITALS CUP
2nd Round

Guy's *v.*
Royal Dental and Charing Cross Hospitals

At H.O.P. Won 4—1.
8th March, 1950.

Guy's Hospital took the first step in attempt- to retain the Inter-Hospital Soccer Cup when they beat the combined Royal Dental and Charing Cross Hospitals, 4—1.

Play opened evenly with the visitors striving to notch the first goal, but it was to Guy's that the initial scoring chance came when they were awarded a penalty, but the usually safe aim of Lipington misfired and he drove the ball straight at the goalkeeper.

Undaunted by this miss, Guy's piled on the pressure and a rasping shot by Cornhill crashed against the crossbar. This same player made amends a little later when he chased a through pass and placed the ball accurately into the net. Half-time came with no further score.

On the resumption Sturdy scored with an unexpected cross-shot. The resultant happy ending to this shot completely surprised the goalie and slightly surprised the executor.

The visitors then scored a goal when their centre forward was let in by a defensive mis-take.

Sturdy and Holloway completed the scoring when they each finished off, calmly, good moves.

For Guy's, Matthews played an excellent match, being a bundle of energy for the whole ninety minutes. The rest of the team played up to expectations.

We thank the visitors for a most enjoyable game played in the highest traditions.

Team : A. Fearn ; M. Bishop, D. Liping-ton ; D. Matthews, C. Leckie, A. Swift ; B. Cornhill, E. Sturdy, D. Harris, A. Prince P. Holloway.

INTER-HOSPITALS CUP
Semi-Final

Guy's *v.* St. Bartholomew's

At Chislehurst. Won 1—0.
15th March, 1950.

It was a fine day with a stiffish breeze blowing down the field, for the semi-final *v.* Bart's, on their delightfully situated, if small-dimensioned, pitch at Chislehurst.

They won the toss, and electing to play with the breeze at their backs, they started in menacing manner. For twenty minutes Guy's were more than hard pressed to keep them out. That our goal remained intact was due to hard tackling, good covering and spoiling tactics by the defence, excellent goal-keeping by Fearn, and some good fortune. There was a fine shot by their skipper, Wright, which hit an upright, ricocheted on to a be-wildered Fearn and thence for a corner ; whilst a foul was deemed to have been committed outside the penalty area by referee Edwards, instead of inside, as many Bart's partisans fondly imagined. Slowly however the trend of the game changed. The fire died in the Bart's inside forwards and Guy's commenced to command the centre of the field. Thus our forwards began to make their presence felt. Long, defence-splitting passes by Prince, tortuous runs by Sturdy, and a first class header by Holloway from a Leckie cross, which brought the best out of their goalkeeper, Cox, all come to mind ; but half time came with no score, which in view of the breeze was perhaps a satisfactory state of affairs from Guy's view point.

The second half quickly brought to the handful of Guy's supporters (why not more in the name of goodness !) something about which to enthuse. Sturdy received twenty yards in the opponents' half, made ground, and from just inside the penalty area let fly. Cox at full stretch—a long way, seeing that he is six feet three inches, just managed to get a finger tip to it but no more. And so Guy's were one up.

We continued, right to the finish, to dominate the play but somehow never looked really dangerous in the penalty area. The inside forwards worked extremely hard, but their efforts were too individualistic, and enabled the Bart's defence to cover easily. Our defence looked sufficiently sound to frustrate all the sporadic raids of the opponents, and a character-less game for a Cup-tie, closed with Guy's worthy winners.

Bishop played his best game to date for the Hospital, whilst Allan successfully subdued McClusky, the Bart's centre-forward, who was the arch-villain in our defeat by Bart's in the Cup Final of 1946-47.

We have thus managed to retain our record of reaching the final every year since the war—and now the inevitable Mary's.

Team : A. d'A. Fearn ; M. H. H. Bishop, D. M. Lipington ; D. G. Matthews, D. W. E. Allan, P. A. Swift ; J. C. Leckie, A. G. Prince, B. S. Cornhill, D. E. Sturdy, P. J. Holloway.

SOUTHERN AMATEUR LEAGUE

Guy's *v.* Old Lyonians

Away. Lost 0—2.
11th March, 1950.

For this match Guy's had to make changes due to slight injuries in the Cup match.

From start to finish this was a game that lacked all the finer points of the sport.

Kicking with the wind in the first half, Guy's forwards lacked cohesion and the Old Lyonians were quick to take advantage of this and scored first. Playing without any thrust it was not surprising that Guy's failed to score in either half and a late second half goal by the home team clinched the issue.

Guy's *v.* Aquarius

Away. Lost 0—7.
18th March, 1950.

Owing to injuries, Guy's fielded a much weakened side, and as a result, not only of this but also of the good football of our opponents, suffered their heaviest defeat of the season. Aquarius scored seven times without reply.

All the goals came in the second half when Guy's were facing a strong wind, for at the interval Guy's were still on even terms, being for that first period of play territorially the masters of the game. Guy's weakness lay in front of the goal at this period, and they were unable to make full advantage of the openings that were made.

Early in this half Watkins, our 2nd XI skip-per, was injured and moved to centre-forward.

This materially weakened our attack since Swift returned to left-half.

The period after the interval was a very different tale, Guy's being held in their own half for a large period of the time, even so, the attack, when they were moving, looked dangerous in approach but again showed weakness in finishing.

Aquarius' first goal, the result of a penalty, came early in the second half. Stout work in the defence could not prevent their adding to this very quickly afterwards. Aquarius were by this time playing attractive football, but only because Guy's allowed them to, by giving their players too much room in which to move the ball. Aquarius were now dominating the game and putting on the pressure, added a further five goals before the final whistle was blown.

SQUASH

The final of the Inter-Hospital Cup against St. Thomas' Hospital was played at St. Thomas' on Thursday, March 9th. St. Thomas' won by three matches to two, thus retaining the Cup which they won last year.

Results :—

M. A. C. Lyon *lost* to H. E. Webb, 0-9, 2-9, 6-9.
D. E. Blake *lost* to A. G. Aitchison 2-9, 3-9 2-9.
D. R. Pugh *beat* N. L. Dallas 10-9, 10-9, 5-9, 9-2.
P. L. Pickett *beat* J. Callander 4-9, 8-10, 9-3, 9-7, 9-0
C. J. G. Menzies *lost* to M. Standish-White 3-9, 9-5, 5-9, 9-1.

HOCKEY

18th March, 1950.

Guy's I *v.* Ealing Dean I
Draw 2—2.

ROWING

On March 11th the Boat Club took an VIII and a IV down to Southampton to row King's College, London, and University College, Southampton.

The course for the VIII's was a tortuous three miles of the Itchen. The superabundance of shipping, the cross wind and the complicated system of buoys combined to make rowing no easy matter. After being stimulated by wading out through icy water to get into their boat the VIII, drawn on the inner station, went off to a fine start. After fifteen seconds they led U.C.S. by half a length and King's by one and a half lengths, and when the half mile post was reached this had increased to one and a half lengths over U.C.S. and four lengths over King's. But on one particularly vicious bend, U.C.S. on the inside made a great effort and came up rapidly to overtake Guy's.

King's, also challenging strongly, were up on Guy's by Northam Bridge and when the crews were approaching the Railway Bridge U.C.S. were well in the lead, with Guy's a length behind King's. The last half mile through Cobden Bridge to the finish saw Guy's well together, but unfortunately, well behind. They could make no impression on the others and finished last, U.C.S. winning easily.

The IV raced U.C.S. over five furlongs from a point below Cobden Bridge to the VIII's finishing post. They also got away to a fine start, and had a one and a half lengths lead when they shot Cobden Bridge. By dint of strenuous efforts U.C.S. narrowed the gap but Guy's held out their finishes and won in grand style by half a length.

Crews : VIII—C. C. Bull, R. C. C. Thompson, J. P. Warren, I. H. Maine, M. W. Potts, E. P. W. Tatford (Capt.), R. D. France, J. McKenna (str.), D. M. Middleditch (cox).

IV—H. Chatfield, T. P. Bass, N. T. O. Taylor, J. D. Broome, M. W. Cooksey (cox).

Hospital Information, etc.

APOINTMENTS VACANT

Applications are invited for the appointment of **Junior Lecturer in the Anatomy Department.** The appointment will date from 1st April to 30th September, 1950, in the first instance. Salary commencing at £600 per annum, plus superannuation and family allowance. Forms of application are obtainable from the Dean and should be lodged in the Medical School Office not later than 28th March.

Applications are invited for the post of **Registrar,** part-time in the **Department of Psychological Medicine,** with attendance on five sessions per week—grading Registrar 1st year. The duties will include investigation and treatment of adult in-patients and out-patients under the direction of the senior staff. The post offers many opportunities for post-graduate study. Forms of application are obtainable from the Dean, Guy's Hospital Medical School, S.E.1., and should be forwarded to him, together with copies of three testimonials, not later than 15th April, 1950.

APPOINTMENTS

J. D. L. Reinhold, B.M., M.R.C.P., Senior Registrar in the Pædiatric Unit, St. Mary's Hospital, Paddington, W.2.

R. H. Blazeby, M.R.C.S., L.R.C.P., D.A. (R.C.S.), Consultant Anæsthetist, Canterbury and Isle of Thanet Group of Hospitals.

INDEX, 1949

The index for the *Gazette* for the year 1949 is now ready and readers who wish to receive a copy are asked to apply to the Manager, Gazette Office, Guy's Hospital, S.E.1., or to the Librarian, Wills Library.

BIRTHS

GARLAND.—On March 1st, 1950, at Nuffield House, Guy's Hospital, to Kathleen (Bunty) (née Parsons), wife of Gordon W. Garland, M.B., B.S., M.R.C.O.G.—a son.

GREAVES.—On March 5th, 1950, at Guy's Hospital, to Jean (née Catchpole) and Sidney Greaves—a son, Robert Corder.

RUSBRIDGER.—On January 21st, 1950, at Lusaka, Northern Rhodesia, to Barbara (née Wickham, S.R.N.) wife of G. H. Rusbridger—a son, Richard.

DEATH

POWER.—On March 4th, 1950, Denis Leonard Power, L.D.S., R.C.S.(Eng.) ex-Squadron Leader R.A.F.V.R., of 104 Newberries Ave., Radlet, Herts., suddenly in motor accident. Dearly loved husband of Pauline and father of Roger and Penny. Elder son of Mr. and Mrs. H. L. Power of Wimbledon.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1610 *8th April, 1950* *Ninepence*

PASSIM

AT the present time in this country about 25,000 people each year die from Tuberculosis and about 300,000 contract the disease for the first time. The mortality and morbidity figures have been falling gradually, except during the two world wars, for the past 50 years. At present, however, they are not falling as rapidly as they could do, and would do, if up-to-date measures for treatment were more widely available. Progress in treatment of the disease has been such that a case of Tuberculosis, diagnosed early, now stands a good chance of returning to a full and active life provided treatment can be instituted without delay. Much can be done even for comparatively advanced cases if only they can be brought within the range of up-to-date treatment. These modern methods of treating the disease, however, are not at present available to a great many sufferers. In other words people are dying every day from Tuberculosis because they have not received adequate medical treatment. Upon this theme much has been written in both the medical and lay Press in recent months. Attempts have been made to better the state of affairs in various ways, but the plain fact remains that no major advance will be made towards mastering the disease until either more powerful anti-biotics are discovered or until more beds and more nurses are available for treatment of patients. Failing the discovery of new anti-biotics, cases of open phthisis will continue to remain dotted about the community and will continue to give rise to new infection. It might be thought that such a clear cut problem should be comparatively easy to resolve. Such is not the case. Judged by results, and there is no other valid judgment of the handling of disease, little, if any, progress is being made. The waiting lists for Sanatoria may be measured more nearly in years than in weeks. The shortage of beds is as bad as it ever has been. Only two weeks ago Dr. Geoffrey Marshall in a letter to *The Times* set the deficiency of sanatorium beds at 5,000.

The problem is not purely a medical one. It is also a sociological one. It will not be solved purely by doctors, nor purely by administrators. It will be solved only by effectual co-operation between the two. It is our contention that effectual co-operation does not exist and that the result of this absence of co-operation is the present *impasse*. We shall not allow ourselves to be caught up in futile controversy as to where lies the blame. We are solely interested in results. Suffice be it to say that long standing and intractable problems of this sort are seldom solved by committees. They are more likely to be solved by the vigorous action of energetic individuals.

All this may seem to be broad generalisation. We will now particularise. In our opinion, if the Minister of Health were to request and to empower each large teaching hospital throughout the country to be entirely responsible for selecting a site, purchasing and altering or building, equipping, staffing and administrating accomodation for 100 bed Sanatorium for the management of Tuberculous disease, then we believe that this disease might be brought under control within a decade In saying this we are well aware of the difficulties to be faced, especially the difficulty of providing adequate nursing staff for such new Sanatoria. It would not, however, be unreasonable for a small part of a nurse's hospital training to be spent at such institutions. Indeed many of the more elementary parts of the training might be learnt as well or better in a sanatorium as in a training school or a hospital.

To control the disease it is not sufficient to continue in the present well intentioned but haphazard way. It is surely the duty of the medical profession not only to find methods of treating disease but also to find means—and to insist upon them—for bringing treatment within the range of all those who need it.

We deeply regret to record the death of Professor Charles Gibson, F.R.S., who for many years was Professor of Chemistry at Guy's Hospital Medical School. An obituary notice appears on another page.

We also regret to record the death in Australia recently of Dr. Joseph Foreman at the age of 98. Dr. Foreman entered this Hospital in 1868. He retired from medical practise in 1922 and from then and until his death spent much of his time in sheep and cattle raising. He always however retained his interest in Guy's, having maintained contact with the Hospital throughout his life. We extend our sympathies to his widow.

About the Park

Microphones and loudspeakers have been installed in some parts of the Hospital for use by Lecturers and Demonstrators. If these devices lessen the strain on teachers who give frequent lectures they are to be welcomed. If they are merely to save people who mutter inaudibly the trouble of speaking then they are not. We should have said that Pathologists stood high amongst the list of good, clear speakers. The spectacle therefore of loud speakers in the Post Mortem room, arranged so that students approximately 10 feet or less from the demonstrator may hear what he is saying, is little short of ridiculous. In our experience the worst offenders are clerks on ward rounds. We hate to think of the number of cases whose histories we have only half heard merely because the clerk preferred to mutter confidentially rather than present the case audibly to the 'round.' Perhaps clerks might be issued with microphones too. Or, alternatively they might be asked (very audibly) to " SPEAK UP !"

The Surgical X-ray Department decided to have its own fire the other night. A fuse box started the trouble. Fortunately it was quickly extinguished; in fact some observers say that the fire put itself out as soon as it was known that a certain Night Sister of fabulous front-page fire fighting fame was on the way to " deal " with it.

We offer our congratulations to Bill Vans Agnew who was playing Hockey again for Scotland last week.

Talking of Hockey we are very pleased to hear that in spite of no grant of money being available from the Clubs Union to help them, the 1st Hockey team have again accepted the invitation to play in the Folkestone Hockey Festival this year. It may not be generally known that this is the premier hockey festival in the country and it is a considerable honour for the Hospital to be invited. We must also add that under the able Captaincy of "Buster" Murray, Guy's have created a very happy impression at the Festival these last two years—as much by their behaviour off the field as their success upon it.

Those of you who follow Rowing and the Boat Race may have read in a Sunday paper the last two weeks articles by the Editor of *Pulse*. He is himself a former varsity oar.

"Mick" Gray who played his last game for the Guy's 1st XV on Saturday has the remarkable record of having played in the Guy's 1st XV for six consecutive years. His sound tackling and strong running on the wing will be greatly missed. We wish him all good luck in the Services which he joins shortly.

We note with great satisfaction that a beautiful hard tennis court is being built between the new Pathology Block and the York Clinic for use by the nursing staff. They have for a long time lacked any facilities of their own and members of the students L.T.C. may look with envy upon the quality of what is now so rightly being provided for the Nurses.

Obituary

Professor C. S. GIBSON, O.B.E., M.A. (Oxon. and Cantab.), Sc.D. (Cantab.), F.R.S.

CHARLES STANLEY GIBSON, who was born in Manchester on 8th February, 1884, was educated at Manchester Grammar School and Corpus Christi College, Oxford, where he held a Natural Sciences Scholarship and studied Chemistry and Crystallography. In 1906 he went to the Manchester College of Technology as research assistant to W. J. (after wards Professor Sir William) Pope, with whom he formed a life-long friendship. When Pope moved to Cambridge, Gibson went with him, and became a graduate member of Sidney Sussex College. During his three years in Cambridge he held a Senior Studentship of the Goldsmiths' Company, and was appointed to an Assistant Lectureship and Demonstratorship in Chemistry in the University. By this time Gibson had established a considerable reputation as a chemist, and this resulted in his appointment in 1912 to the Chair of Chemistry in the University of Madras, at the Maharaja's College, Travandrum, Travancore, S. India, a position which he held until 1919, when he became Professor of Chemistry in the Egyptian Government School of Medicine, Cairo. His stay in Egypt was short, and in 1921 he came to Guy's as Professor of Chemistry in the University of London to fill the vacancy caused by the election of T. M. Lowry to the Chair of Physical Chemistry at Cambridge.

During the First World War, Gibson was seconded for war service, and was appointed Honorary Advisor to the Chemical Warfare Department and Ministry of Munitions in 1916. This brought him once more into contact with Pope, in collaboration with whom he developed methods for the large scale production of mustard gas. For his services he was awarded the O.B.E. in 1919. During the Second World War, Gibson again turned his attention to the problems of gas warfare, and was appointed Senior Gas Advisor first to the London Region, and later in Region 12, where he established a gas Laboratory in the garden of a large house near Tunbridge Wells. There he entered enthusiastically into the task of organizing lectures for Gas Identification Officers, and one of his close associates tells me that he will always remember him as a little figure encased from head to foot in anti-gas clothing, standing unperturbed amid flames and fumes arising from a large galvanised tray containing mustard gas on to which he was throwing shovelfuls of bleaching powder.

Gibson was a gifted teacher and an enthusiastic research worker, and under his able guidance the Guy's Chemistry Department grew steadily in importance, reputation and influence. Though his interest were mainly in the field of organic chemistry, particularly the investigation of the organic compounds of arsenic and gold, he made useful contributions to our knowledge of the properties of dental materials, and his total output of original work is an impressive one, comprising some 124 papers published mainly in the Journal of the Chemical Society. He also found time to write several books, of which the best known is his " Essential Principles of Organic Chemistry," published in 1936.

In recognition of his distinguished scientific work, Gibson was made a Fellow of the Royal Society in 1931, and was elected President of Section B of the British Association for the Advancement of Science in 1938. He was a member of learned societies, both at home and abroad, and served the Chemical Society as Honorary Secretary from 1924-33, and was Vice-President from 1933-36. Busy as he was he found time to act as Honorary Secretary to the Academic Assistance Council (now the Society for the Protection of Science and Learning), and in this connection he played a notable part in rendering aid to foreign scientists who were the victims of political persecution. On his retirement in September 1949, after 28 years service to Guy's, Gibson was given the title of Professor Emeritus in the University of London.

Gibson had been in failing health for some years, but when I last saw him he was in cheerful mood, and told me that he was looking for a house at some place on the south coast not too far from London. He was hoping to be able to make the move in the early spring, but it was not to be. Since Christmas his hold upon life had become more and more precarious, until at last the end came peacefully on 24th March after a period of unconciousness. Though not unexpected, the news of his death came as a shock to his old friends and colleagues, who will miss his familiar figure in the Park, on the stairs leading up to the Chemistry Department and in the Staff Common Room.

G.S.

C.S.G.

A PERSONAL NOTE

For many years after he came to Guy's in 1920, Gibson and I kept house together in St. Thomas's Street, so that I had ample opportunity of getting to know him well, and to know him well was to appreciate his sturdy independence, his sincerity and honesty of motive and his tremendous loyalty, both to individuals and to institutions.

Very early in his career he had made it his ambition to become elected to the Royal Society and, as he appreciated that merit must be the determining factor, he never spared himself. Although every minute he could find was devoted to his research work, his strong sense of duty and his loyalty to the School ensured that he never allowed this to interfere with the interests and welfare of his Department. In fact, the reverse was the case, for his reputation as a research chemist attracted a succession of keen and able young men to work with him, and many of them now hold important posts in the academic world. In this way he was able to build up a department which was generally regarded as one of the leading Departments of Chemistry in London, from the teaching and from the research output point of view. At the same time, from 1924 to 1933, he undertook the duties of Honorary Secretary to then Chemical Society, an office that was no sinecure, and he put his whole heart and soul into it. His election to the Royal Society in 1931 gave him intense satisfaction and was acclaimed by all his friends as a well-merited recognition of the value of his work.

His admiration for his old chief, the late Sir William Pope, knew no bounds, and although he was by no means blind to the failings of his hero, he always thought of him as the Master. His loyalty to Guy's was equally deep and abiding. For many years we regularly attended the Inter-Hospital Boxing Championship together and in those days Guy's had a great team. When we won, his excitement was almost hysterical, and on these occasions I have often seen him literally jump for joy, but when we lost his disappointment was so deep and real that it became too much for him and later on he couldn't be induced to attend.

Superficially he had the failings that are usually associated with his physical handicaps. Everything that he undertook was a matter of supreme importance and, as a result, his leg not infrequently received the pulls which it invited, but he was always good-tempered about it and never bore any malice.

Outside his work he had many interests. He was a lover of the piano, and no composer rivalled Chopin in his affections. Most of his holidays were spent abroad, and he loved pottering about in the great cities of the continent. He had on rare occasions played golf and tennis, and everyone, himself included, derived much amusement from his efforts, but he was a first-class swimmer and thoroughly at home in the water.

There was something brave about him, for his spirit always rose above his physical disabilities. He was a real personality at Guy's and we shall miss him sadly.

T.B.J.

Tuberculosis Control

A. J. BEALE, M.B., B.S.

Epidemiology.

THE mortality from tuberculosis in England and Wales has been steadily falling since the time that reliable figures have been available. In 1851 there were over 3,500 deaths per million of the population and by 1946 this had fallen to about 500 per million. This decline in overall mortality has been steadily progressive, except for two setbacks which occurred in both world wars. This is a very satisfactory trend, but even now about 400 people die every week from the disease, so there are no grounds for complacency. Analysis of the general figures underlines the seriousness of the situation. If mortality is plotted against age, the shape of the curve differs greatly in the two sexes. There is an initial peak in infancy followed by a low mortality in the school years for both sexes. Thereafter a sharp rise occurs to reach a peak, rather higher for females, at about 25 years. Mortality then drops sharply for females, for males it continues to rise though more slowly to reach a second peak. This peak has been moving steadily up the age groups and is now at about 60 years.

Our present population contains a higher proportion of old people than it did in 1851, and this alone would cause some drop in overall mortality figures, as the disease falls especially on young adults. In their analysis of the figures by sex and age, Hart and Payling Wright (1939) showed that the decline in mortality for young adults (15-24 years) had lagged behind the general improvement, and for females of this age there had been no improvement in the years 1900-1936. They also showed that substandard housing (using the percentage of the population in private families at a density of more than two persons per room as the measure) and phthisis mortality were positively correlated. The importance of overcrowding was still evident when the two other indices of poverty used were held constant (poor relief and the social index based on occupational grading). It is well known that the morbidity from tuberculosis is much higher in those exposed to infection in the home. This is well illustrated in figures, Table I, published by the Royal College of Physicians' Prophit Survey (1948), which also show the higher incidence in those especially exposed at work.

Table I.

Tuberculosis morbidity in females expressed as Annual rate 1,000

Group	*Number*	*Morbidity rate*
Controls	877	5.5
Students	137	9.9
Nurses " B "	2774	9.7
Nurses " A "	1286	13.7
Contacts	520	32.7

"A" hospitals admit all classes of patients including chronic cases and many have tuberculosis wards.

" B " hospitals select mainly acute cases.

The incidence of tuberculosis is especially high in certain trades, and the factors responsible in one of them, the boot and shoe trade, have recently been investigated by Stewart and Hughes (1949). They found that the incidence (rate per thousand discovered in an M.M.R. survey) was higher in the big factories. These were newer and considered to be more hygienic by trained factory inspectors but the number of people working in a room was greater. This, again, emphasises the importance of close personal contact in the spread of tuberculosis. There are however other important factors, some of which were revealed by the investigation of Hart and Payling Wright (1939). There has been a check in the rise of the standard of living coincident with the lag in decline of mortality for young adults. There has been a great increase in the number of young women employed in industry and a tendency for the large factory to oust the small workshop over the same period. Young adults bear the brunt presumably partly because of their heightened biological sensitivity, and partly because they have just left the comparative shelter of the schools for the hazards of work in a competitive society.

Morbidity statistics are at present unreliable guides to the trends in tuberculosis, because of the improvements in the methods of diagnosis and the initial reluctance to notify the disease in the face of social prejudice. However, taking the tuberculin test as an indication of infection, it is found that this has declined in the same way as mortality. The best and most familiar technique of tuberculin testing is the intradermal method introduced by Mantoux in 1910. This is an accurate method and in England it is customary to refer to the dilution of Old Tuberculin using an O.1. ml. dose. Recently there has been a tendency abroad to refer to weights of O.T., a practice based on the unwarranted assumption that 1 ml. O.T. weighs 1 gram. However since this system is being increasingly used, the relation between dilutions and weights is shown in Table II.

TABLE II.

Dose	*Dilution*	*Weight O.T. mg.*
0.1	1/100	1.0
0.1	1/1000	0.1
0.1	1/10000	0.01
0.1	1/100000	0.001

The Purified Protein Derivative (P.P.D.) of Old Tuberculin is also being increasingly used. It is dispensed in tablets 0.00002 and 0.005 mg. equivalent, respectively, according to Smith and Martin (1948), to 0.01 and 1 mg. of O.T.

The early studies of Von Pirquet in Vienna and Mantoux in Paris about 1910, showed that by the age of 15 over 90% of the population were tuberculin positive. Hart (1932) investigated London school children and found 65% of the 11-20 age group positive and 90% of the over 20's. The figures of the Prophit Survey carried out between 1935 and 1944 are shown in Table III.

TABLE III.

Percentage of individuals tuberculin positive related to age.

Age	*Navy Boys*	*Controls*	*Medical Students*
15-16	63	—	—
-17		76	81
18-19		83	84
20-21		88	84
22-23		88	84
24-		90	90

Table IV, also compiled from the figures of this Survey, shows the relation between tuberculin allergy and previous environment. The lower infection rate amongst rural people in Wales and Ireland is significant; the lack of difference between the groups in England is presumably due to better transport.

TABLE IV.

Percentage nurses negative to 1 mg. O.T.

Country	*Rural*	*Urban*
England	20	18
Wales	35	19
Ireland	35	19
Contacts	–	8

THE INFLUENCE OF HEREDITY.

The role of inheritance in tuberculosis has long been a subject for controversy. Whilst environmental factors are of prime importance, it is likely that genetic factors play some part in determining resistance. Kallman and Reisner (1943) have studied the incidence of tuberculosis amongst the relatives of 308 cases in one of a pair of twins. The figures, Table V, show an increase in incidence the nearer the relationship to the twin index case becomes. The difference between the two sorts of twins is quite remarkable and could not in the authors' opinion be due merely to similarities in environment.

TABLE V.

Incidence of tuberculosis in the relatives of 308 'twin index cases.

Relation	*Number*	*Rate per cent*
Marriage partners	226	7.1
Half siblings	74	11.9
Parents	688	16.9
Siblings	930	25.5
Dizygotic twins	230	25.6
Monozygotic twins	78	87.3

SPECIFIC IMMUNITY AND ALLERGY.

The relation between allery and immunity in tuberculosis is very complex. The work of Heimbeck in Oslo has focussed attention upon the potential danger of the tuberculin negative state, and since then there has been a tendency to equate allergy with immunity. Heimbeck (1936) examined 905 probationer nurses with the Von Pirquet technique. He found 625 positive and 208 negative: subsequently 27 (no deaths) of the former and 96 (10 deaths) of the latter developed tuberculosis. These figures show a striking benefit from the allergic state. They should however be treated with caution since morbidity was high in both groups implying severe esposure; and the nurses in the positive group were selected in as much as they had survived their primary infection. Heimbeck's results have been confirmed in general in later investigations on similar material. Wilson and Miles (1946), however, draw attention to observations on native boys entering the Rand gold mines. It was found that the degree of allergy shown by these boys was directly related to the subsequent incidence of clinical tuberculosis. These two series are not really comparable, since the initial medical examination of the Rand boys could not be so searching as that of Heimbeck's nurses, and it is probable that many of the boys had latent disease at the time of the tests. They do show that the relation between allergy and immunity is not simple. This is confirmed by animal experiments. Rich (1944) in a series of papers has argued that allergy and immunity are quite independant. He has shown that if guinea pigs are rendered allergic by a small dose of tubercle bacilli and then desensitised by repeated large doses of Old Tuberculin they are just as resistant and in some cases more resistant than controls not so desensitised. Wilson, Schwabacher and Maier (1940) confirmed Rich's observations in general, but were forced to rather different conclusions. They found that desensitisation of the skin could not be maintained absolutely and doubted if desensitisation of other tissues ran parallel with that of the skin. Their results suggested that moderate initial allergy was beneficial compared with no allergy or severe allergy.

CONTROL—CASE FINDING AND TREATMENT.

Since cases are the only important reservoir of infection the foundation of the control of tuberculosis is case finding and segregation till the danger of spreading the infection is passed. Modern experience has shown that chest radiography is essential for case finding as early cases have no physical signs. Radiography is required for suspicious cases, for contacts and for those specially exposed. At present, owing partly to the pressure of work in diagnostic X-ray departments, there is often a serious lag before such people are examined. It is in the solution of this problem that Mass Miniature Radiography represents such an important advance.

Having discovered a case of tuberculosis it should be isolated and assessed, but at present the waiting lists for sanatoria are so long that many months must elapse before this is possible. Since the time that Trudeau introduced the modern sanatorium system the methods of assessment and treatment of tuberculosis have changed out of all recognition. Nowadays the sanatorium should really be a chest hospital equipped to perform all the surgical measures that dominate the treatment. It must also have facilities for the bacteriological control of an increasing range of chemotherapeutic and antibiotic substances. There has been no sign of a decrease in the average length of stay of patients with these changes, though the advantages of institutional care have greatly increased. This situation has led many chest physicians notably Dr. Toussain

here in Bermondsey and later in Willesden, to introduce domicilary collapse therapy. Though amply justified under prevailing conditions, this is obviously not ideal. A better solution would be to shorten the stay of patients in sanatoria by discharging them, before completing the full regime of rehabilitation, to the care of their local chest physician. This would give them the benefit of institutional facilities during the assessment and important early phase of treatment of their disease. They would also be segregated early, and educated in the personal methods of controlling the spread of infection. This discipline is much more easily acquired in hospital where it has the sanction of social custom than at home where it often conflicts with it.

Tuberculosis is a chronic disease prone to relapse and the results of treatment even at a first class hospital, are not entirely satisfactory. The annual report for the year July 1938-June 1939 of the King Edward VII sanatorium, Midhurst, for example, showed 244 admissions 55 of which were readmissions and 233 discharges, 31 of which had been readmission cases. The majority of the cases returning require some form of surgical treatment. Impressed by this aspect of the disease Varrier Jones started a village settlement for the tuberculous at Papworth, in Cambridgeshire, in 1916. Here chronic cases were segregated in an environment where the conditions of life and labour were ordered in accordance with their special needs. The experiment has afforded striking evidence of the value of educating a community in the control of the disease. Brieger (1944) in his report on the Papsworth families showed that there had been no deaths from, nor clinical manifestations of tuberculosis amongst the 108 children born in the village. The village settlement appears to be the best solution to the problem of the chronic sputum positive case, but unfortunately quite a number of patients become dissatisfied with the life and are either discharged on disciplinary grounds or leave against medical advise.

Bovine Tuberculosis.

Wilson (1942) estimated that bovine tuberculosis was responsible for 1,500-2,000 deaths in England and Wales in 1937. He also reviewed the evidence incriminating milk as the important vehicle of infection, and finally he showed that pasteurisation is the only safe and efficient method of controlling milk borne disease. The observations of Sigurdson (1945) are of great interest in this connection. He typed the strain of organism in a series of cases of phthisis, in a sanatorium in rural Denmark. He found, Table VI, that bovine strains were responsible for the disease in a large number of the patients from rural areas. Such a high incidence has never been reported for phthisis before, though the figures for urban patients are much nearer those usually found.

Table VI.

Bovine strains in phthisis related to origin of patients.

Environment	*Number*	*No. Bovine*	*Per cent Bovine*
Rural	165	67	40
Urban	362	13	3.6

Subsequently Sigurdson made a detailed epidemiological study of the bovine cases and adduced some evidence that infection spreads direct form the cow to man not via the milk in many instances. If these results are confirmed in England they will give added force to the arguments in favour of the eradication of tuberculosis from cattle.

Artificial Active Immunity.

Ever since Koch's discovery of the tubercle bacillus the possibility of increasing specific immunity to tuberculosis has attracted many workers. Now only two agents require serious consideration, the Bacillus Calmette Guerrin and the vole bacillus of Wells. Since much more work has been done with B.C.G. only this will be considered here, though an encouraging trial of the vole bacillus in the immunisation of cattle has recently been described by Young and Paterson (1949).

The B.C.G. strain was originally isolated by Nocard in 1902 from an active lesion on a cow's udder. Calmette and Guerrin found that if it was repeatedly subcultured on a glycerol bile potato medium the strain became avirulent. This suggested to them that it might be used an an immunising agent, in the same way that Pasteur had used other avirulent strains of pathogenic organisms before them.

The technique of preparing the vaccine differs in various laboratories, but in general the following scheme is used. After eight hours growth in Sauton's broth, the organism is subcultured onto fresh Sauton and allowed to grow for twenty days. The surface growth is then harvested and weighed wet. It is homogenised and dispensed in ampoules containing a known weight of vaccine (1 mg. of B.C.G. contains approximately 40 million organisms). Samples of the vaccine are innoculated in broth and on agar slopes and incubated for 48 hours to test for accidental contamination. The vaccine is then issued to be used within 15 days (8 in Scandinavia) of preparation. Guinea pig innoculation is also made as a check on virulence, but this can only have retrospective value in the event of a disaster. Attempts are now being made to develop a suitable freeze drying technique, so that the vaccine may be preserved for a longer time. The potency of each batch, as judged by its ability to induce allergy has also to be watched. Prior to 1930 many successful attempts to induce a return of virulence were reported, but they all involved deviation from the standard methods of culture used in the preparation of the vaccine. Irvine (1949) has reviewed the evidence showing that properly prepared the vaccine is harmless. Great care and a special laboratory are needed as was shown by the one big disaster, which occurred in 1930 at Lubeck, when 77 children died of tuberculosis out of 251 vaccinated. The official report, abstracted in the Bulletin of Hygiene (1936), showed clearly that an accidental contamination with a virulent human strain (Kiel strain) had occurred in the laboratory.

Immunising Effect of B.C.G.

Animal experiments have shown that the vaccine has a small but definite immunising effect. Schwabacher and Wilson (1938), for example, found that vaccinated guinea pigs, if subsequently infected with a small dose of virulent bacilli, survived longer, showed less severe lesions at autopsy and had fewer organisms in their lungs than unvaccinated controls.

In man the only aim of vaccination, so far, has been to raise the immunity of tuberculin negative individuals. There are thus two aspects to the efficiency of the vaccine, its effect on the primary infection and upon progressive tuberculosis. It is commonly supposed that the primary infection is always benign, but the considerable numbers of cases of miliary disease and meningitis seen in any pædiatric department, the high incidence of pulmonary lesions after pleural effusions and erythema nodosum and the numbers of serious primary complexes admitted to sanatoria, all indicate that this is not so.

All workers agree that vaccination will confer allergy. The numerous investigations of its immunising ability have been critically reviewed by Wilson (1947). Here three investigations only, will be briefly mentioned. Hyge (1947 and 1949) has described the interesting events in a girls school in Denmark. In October, 1941, three of the girls were found to have tuberculosis, and at a re-examination of the school three months later no new cases were found. Tuberculin testing showed 133 positive and 200 negative girls. B.C.G. vaccination was offered to the negative girls, and 144 of them were vaccinated and became tuberculin positive. In December, 1942, there was the following distribution :

130 positive from natural infection
133 positive from vaccination
105 negative

In January, 1943, an "influenza" epidemic occurred in the school and included some cases of erythema nodosum. This led to another investigation of the school, and a physics mistress who taught in a blacked out cellar was found to have open phthisis. No reactions occurred in 63 girls (11 negs.) who had no contact with this teacher and they have been excluded from the 1949 follow up figures shown in Table VII.

Table VII.

School outbreak in partially vaccinated community.

Group	*Number*	*1st manif.*	*Pulm. disease*
Natural 1st infection	105	–	4
Vaccinated	106	–	2
Negative	94	41	11

The second study is that of Aronson (1948) amongst North American Indians. This was a large scale trial in which some care was taken to make the groups comparable. The groups were analysed and equalised with regard to age, sex and exposure. They were X-rayed and Mantoux-tested before the trial and thereafter yearly. All X-ray films were read in ignorance of the group of the individual. Table VIII shows the mortality figures, similar differences were noted in morbidity.

TABLE VIII.

Effect of B.C.G. on mortality amongst North American Indians.

Group	*Number*	*All deaths*	*T.B. deaths*	*T.B. mortality*
Control	1457	109	53	3.5
B.C.G.	1551	53	6	0.4

The third study, that of Levine and Sackett (1946) in New York, shows a different picture. Before 1933 they felt that the more "intelligent" parents were co-operating better and an unfair comparison was being made. Subsequently they took care to equalise their groups especially in relation to this factor. Table IX shows the results before and after this change.

TABLE IX.

Effect of B.C.G. vaccination in New York.

	Before 1933		*After* 1933	
Group	*Number*	*T.B. deaths*	*Number*	*T.B. deaths*
Control	545	18	528	8
B.C.G.	445	3	566	8

None of these patients were segregated from infection during vaccination and in criticising the work Van Diense (1948) made much of this point. It is generally considered inadvisable to vaccinate allergic or recently infected individuals because of the danger of activating a healing lesion. In order to avoid this six weeks segregation before vaccination and a similar period afterwards, depending how long it takes for allergy to develop, is required. This is a severe limitation, because it is just in conditions where segregation is impossible that some artificial immunity is most needed. Many workers have therefore dispensed with it entirely. Thus many will be vaccinated in the preallergic phase, others will be infected before allergy develops and yet others tuberculin positive will be vaccinated in error; despite this, so far no serious untoward effects have been reported. The above investigations would seem to show that B.C.G. confers about the same degree of immunity as a natural primary infection. Its great merit is that its does so without the dangers associated with uncontrolled dosage.

The experience of Olsen (1943) in his attempt to control the spread of tuberculosis in Bornholm is of great interest. The community is mostly engaged in agriculture but bovine tuberculosis has been eradicated from their herds. In recent years there has only been one death from bovine infection and this patient had spent some time on the mainland right up till the time of diagnosis. A majority of the population reach adult life tuberculin negative, and Olsen found a disturbing number of the young adults who emigrated to the mainland developed tuberculosis. He started offering all emigrants who were tuberculin negative B.C.G. vaccination in 1937 and by 1940 the majority of the tuberculin negative individuals on the island were accepting vaccination. Table X shows the incidence of tuberculosis in Bornholm for successive five year periods.

TABLE X.

Tuberculosis in the Danish island of Bornholm.

Period	*Total notifications*	*No. in 15-30 group*
1936-1940	134	70
1941-1945	82	27

In 1945, Olsen found that 98% of the population were tuberculin positive

either by natural infection or vaccination. The trend of tuberculosis in Bornholm in the next five years will be very interesting since if B.C.G. is effective the incidence may be expected to fall in a geometric progression.

Methods of Administration.

There is as yet no single standardised procedure for vaccination. The original oral method has been generally abandoned as inaccurate and inferior in the production of allergy; the subcutaneous route is also rarely used as cold abscesses follow rather frequently. Three main methods are used.

Intradermal.

This is favoured in Scandinavia and has the merit of accuracy, the technique is not difficult with a little practice. The dose is usually 0.05 mg. (0.1 ml. of 0.5 mg./ml. susp.).

Scarification.

The technique is similar to that made familiar for smallpox vaccination. The vaccine used is usually 75 mg./ml.

Multiple Pressure.

This can be done with an ordinary needle or with one of the special machines that have been designed.

There are not many studies on the relative merits of these methods, but Irvine (1949) in his review favours the last method. This would be in accordance with the results of Rees (1948) on smallpox vaccination at Guy's.

Conclusion.

There would seem to be sufficient evidence to justify the inclusion of B.C.G. vaccination in a complete scheme for tuberculosis control. Those tuberculin negative individuals specially exposed to infection are likely to derive most benefit, and most English opinion (*Lancet*, 1949) is now in favour of excluding such people from the carefully controlled trial of the vaccine still required to place it upon a really sure basis. The danger, at present, is that too much attention may be paid to vaccination to the neglect of the well tried methods of case finding and segregation. More benefit would acrue from a determined attack upon the administrative problems involved in overcoming the bed shortage, than can be expected from immunisation at the present time. However, Olsen's experience on Bornholm offers hope that an intensive campaign utilising all available methods may reduce tuberculosis to the same relative insignificance as the other zymotic diseases.

References.

Aronson, J. D. 1948. *Am. Rev. Tub.* LVIII:255
Breiger, E. M. 1944. *The Papworth Families.*
Bull of Hygiene 1936. *Abst.* XI:426.
van Diense, F. 1948. *Am. Rev. Tub.* LVIII:571.
Hart, P. D'Arcy 1932, M.R.C. *Sp. Rep. Ser.* 164.
Hart, P. D'Arcy and Payling Wright, G. 1939. *Tuberculosis and Social Conditions in England. N.A.P.T.*
Heimbeck, J. 1936. *Tubercle* XVIII:97.
Hyge, J. 1947. *Acta Tub. Scand.* XXI:1.
Hyge, J. 1949. *Acta Tub. Scand.* XXIII:153.
Irvine, K. N. 1949. *B.C.G. Vaccination in Theory and Practice.* 2nd Edition. Blackwell Scientific Publications. Oxford.
Kallman, F. J. and Reisner, D. 1943. *Am. Rev. Tub.* XLVII:549.
King Edward VII Sanatorium, Midhurst. Ann. Rep. No. 33. July 1938-June 1939.
Levine, M. I. & Sackett, M. F. 1946. *Am. Rev. Lab.* LIII:517.
Lancet Ed. 1949. 2:1225.
Olsen, H. C. 1943. *Acta Tub. Scand. Supplement* 11.
Olsen, H. C. 1945 cited by Heaf, F. R. and Rusby LI 1948. *Recent Advances in Tuberculosis.* 4th Edition. Churchill. London.
Prophit Survey 1948. Roy. Coll. Phys. Lewis, London.
Rich, A. R. 1944. *Pathogenesis of Tuberculosis.* 1st Edition. Thomas Springfield, Illinois.
Rees, R. J. W. 1948. *Lancet* 2:943.
Schwabacher, H. and Wison, G. S. 1938. *J. Path.* and *Bact.* XLVI:535.
Sigurdson, J. 1945. *Acta Tub. Scand. Supplement* 15.
Smith, D. T. and Martin D. S. 1948. *Zinnser's Textbook of Bacteriology.* 9th Edition. Appleton. New York.
Stewart, A. and Hughes J. P. W. 1949. *Brit. Med. Journ.* 1:926
Wilson, G. S. 1942. *The Pasteurisation of Milk.* Arnold. London.
Wilson, G. S., Schwabacher, H. and Maier, I. 1940. *J. Path. and Bact.* L:89.
Wilson, G. S. and Miles, A. A. 1946. *Topley and Wilson's Principles of Bacteriology and Immunity* 3rd Edition. Arnold. London.
Wilson, G. S. 1947. *Brit. Med. Journ.* 2:855.
Young, J. A. and Paterson, S. 1949. *J. Hyg. Camb.* XLVII:39.

Correspondence

History of the Hospital 1725-1948

SIR,—The Committee of the *Gazette* are preparing for publication a short illustrated history of the Hospital from 1725-1948. A sub-committee of which I am a member, has the task of collecting and arranging the material. It is intended to reproduce a number of old prints and views of the Hospital, unfortunately there does not appear to be any list of these early prints. I have been able to trace those described below, but there must be several known to your readers which I have not come across. In 1928 what would appear to be the most complete set of early prints of Guy's was sold as lot No. 2429 and 2430 of the Gardner Collection at Sotherby's. Messrs. Ellis and Smith of Grafton Street, who bought the lots cannot remember to whom they sold them and I would be most grateful if any of your readers could let me know their present whereabouts, or of the existence of any prints not mentioned below, particularly any of the old Clinical.

1. "Guy's Hospital for Incurables." By John Bowles. 1725. Printed and sold over against Stocks Market and at Mercers Hall. A large sheet about 26in. x 26 in. showing a bird's eye view of the two quadrangles of Guy's House, surrounded by eight smaller views.
2. "Mr. Guy's Hospital for Incurables, in the Borough of Southwark." ? source and date. View of the front of Guy's House and almost identical with the centre of Bowles' plate.
3. A view of the front of the Hospital before the Chapel was built. S. Wale delin B. Green Sc. Date ? before 1780, from Dodsley's London and Europe, vol.. III p. 112. This view shows the front of the Hospital from outside the gates, a carriage driving up the Collonade, a man and woman (left), three men (right).
4. "View of Guy's Hospital in Southwark." From Harrison's History, Description and Survey of the Cities of London and Westminster, the Borough of Southwark and adjacent parts, page 199, 1776. View of front of Hospital from without front gates before alteration to central facade. Man with stick over shoulder walking with dog in foreground.
5. "View of Guy's Hospital, St. Thomas' St., Southwark." From Thornton's New History and Survey of London, page 262. ? date. Almost identical to above (No. 4) differing only in cloud effects.
6. A bird's eye view of Guy's House with both wings added. R. West del. W. H. Tom, sculp. From Maitland's History of London, Vol. II, p. 1305, 1756. Although drawn in 1738 and published twenty years later, it represents what the Hospital must have looked like in about 1778 before the central facade was altered.
7. "Guy's Hospital, Southwark." Published by J. Asperne at the Bible, Crown and Constitution Cornhill, 1st Nov., 1803. Engraved by Rawle. View from outside gates shows elongated view of front quadrangle with present portico. Two men carry patient through gates, quizzed by man (right), viewed by two other men (left).
   This print seems to have been freely used during the next twenty years. Reproductions of it appear in the *European Magazine*, and sculp. by J. Pass, 1815, it was published by C. Hulbert, Shresbury.
8. Several prints similar to above were used by the Hospital as Certificates of Study, one engraved by G. Cooke and H. Lekeux, Nov., 1817, was in use in 1846. It showed a cripple and companion (left), two men and child in front of gate and several people around Guy's statue.
9. "Anatomy Theatre." A colour wash elevation by the Architect, Samuel Robinson, who presented it to Benjamin Harrison in 1825.
10. "Guy's Hospital and Statue of Thomas Guy, the founder." One of a series of coloured prints drawn by Thomas H. Shephard. Engraved by T. Highan, 1831. This is one of the most attractive of the early prints, shows only part of the front quadrangle with the old lamps standing on tall pyramidal blocks of stone in front of the Counting House and Chapel. About a dozen people stand in the foreground and a glimpse of the park is seen through the Colonnade.
11. "Guy's Hospital." J. Rogers. ? source and date. c. 1830-40. A view of the front of Guy's House from within the gates showing a carriage and pair driving up to the steps and a dozen or so people walking in the front quadrangle.
12. A view similar to No. 8 (above) in use in 1837 with two ladies with bonnets and a little boy looking through the gates at Guy's statue.
13. "Guy's Hospital." By G. R. Crawford from *Home Counties Magazine*, Vol. VIII, p. 41.
14. View of Hunt's House. *Illustrated London News.*
15. In May, 1887, *The Graphic* produced an article illustrated by H. Johnson, on Guy's. Amongst other views it showed the front of the Hospital with the glass domed operating theatre. A view of Hunt's House taken from the old clinic. Mary Ward, one of the Clinical Wards, the Women's and Men's Surgery, the splint room, Dorcas Ward and the old stair case.

Yours, etc.,

IAN SCOTT.

The Residents' Ball, 1950

SIR,—The Residents' Ball, this year, will be held at the Park Lane Hotel, Piccadilly, W.1., on Friday May 12th. Lady Symonds has most graciously consented to be the Hostess.

The Reception will be held at 7.30 p.m. followed by dinner, dancing and a cabaret.

Application for tickets may be made on the form enclosed in this issue of the *Gazette*. No applications can be considered after April 22nd.

Yours, etc.,

C. V. G. MENZIES,

Chairman, Residents' Ball Committee.

Guy's Hospital,
London, S.E.1.

Good English

RECENTLY we referred to the poor English to be found in some scientific writings. As an example of good writing we reprint below an extract from Sir Charles Sherrington's book "Man on His Nature." It is taken from the chapter entitled "The Brain and Its Work," and will, we feel, be of interest to our readers:

"Not so long since, so we have read, science inclined to look upon all nature somewhat as a feat of engineering. That day passed with the coming of present-day mathematical outlook. A custom of that former phase was for fancy to help itself by recourse to a model. So with our conception of the brain; if we may let our fancy run and follow an engineering bent, it may contrive as something, however crude, not too remote for pictorial service.

"A scheme of lines and nodal points, gathered together at one end into a great ravelled knot, the brain, and at the other trailing off to a sort of stalk, the spinal cord. Imagine activity in this shown by little points of light, of these some stationary flash rhythmically, faster or slower. Others are travelling points, streaming in serial trains at various speeds. The rhythmic stationary lights lie at the nodes. The nodes are both goals whither converge, and junction whence diverge, the lines of travelling lights. The lines and nodes where the lights are, do not remain, taken together, the same even a single moment. There are at any time nodes and lines where lights are not.

"Suppose we choose the hour of deep sleep. Then only in some sparse and out of the way places are nodes flashing and trains of light points running. Such places indicate local activity still in progress. At one such place we can watch the behaviour of a group of lights perhaps a myriad strong. They are pursuing a mystic and recurrent manœuvre as if of some incantational dance. They are superintending the beating of the heart and the state of the arteries so that while we sleep the circulation of the blood is what it should be. The great knotted headpiece of the whole sleeping system lies for the most part dark, and quite especially so the roof-brain. Occasionally at places in it lighted points flash or move but soon subside. Such lighted points and moving trains of lights are mainly far in the outskirts, and wink slowly and travel slowly. At intervals even a gush of sparks wells up and sends a train down the spinal cord, only to fail to arouse it. Where, however, the stalk joins the headpiece, there goes forward in a limited field a remarkable display. A dense constellation of some thousands of nodal points bursts out every few seconds into a short phase of rhythmical flashing. At first a few lights, then more, increasing in rate and number with a deliberate crescendo to a climax, then to decline and die away. After due pause the efflorescence is repeated, with each such rhythmic outburst goes a discharge of trains of travelling lights along the stalk and out of it altogether into a number of nerve branches. What is this doing? It manages the taking of our breath the while we sleep."

ACADEMIC

April		
		Exhibition. Surgical Department. " Breast Cancer."
13th.	1.00.	Mr. Grant Massie. Clinical Lecture.
14th.	1.00.	Dr. Kauntze. Clinical Lecture. " Spot Diagnosis."
17th.	1.00.	Dr. Moynahan. Clinical Lecture. " The Collagen Diseases."
21st.	1.00.	Dr. Hardwick. Clinical Lecture.

SPORT

April	
15th.	Association Football 1st XI *v.* Aquarius. (H.O.P.)
	Association Football 2nd XI *v.* Pearl Assurance. (H.O.P.)
22nd.	Association Football 2nd XI *v.* Old Parkonians. (H.O.P.)

Music Club

Easter is noted for its wealth of Passion-tide music and we are indeed fortunate that Johann Sebastian Bach provided so rich a contribution. Composed at the beginning of the eighteenth century, his two great Easter oratorios, the St. Matthew and the St. Luke Passion, tell the story of our Lord's death with sincerity and devotion, if not tinged with a sense of the dramatic. Bach's claim on singers and players alike are well known and his writings for the human voice betray an instrumental bias.

It was, therefore, a brave decision on the part of our Music Society to present the Passion according to St. John for their spring term concert. This decision was worth taking however, and all are to be congratulated on a splendid evening of music. The choral society comprising as it does some fifty members acquitted themselves with distinction. Though at times a trifle ragged on the attack, particularly in the first chorus, the body showed evidence of thorough training and blended together to give a solid yet expressive effect.

Of the soloists one cannot speak too highly. The arduous part of the Evangelist was taken by David Price, who gave a faultless performance. Here was sheer beauty. Perfect, effortless singing is a pleasure at all times, but Mr. Price combined this with just that touch of the dramatic so essential to the successful narrator. We were indeed fortunate to obtain his services. Miss Elizabeth Humphries, well known to Guy's music lovers, again entranced us with her pure soprano tones. Her rendering of " I follow in gladness to meet thee " was particularly memorable. Excellent too was Miss Sylvia Beamish who sang the two alto arias. She possesses a clear voice of wide range—of her we should like to have heard more.

John Soothill, a faithful and staunch leader of the music society, took the part of Jesus. His voice, though not excelling in recitative, is pleasing and he sang his part exceptionally well. Mr. Gordon Nicholson made an efficient Pilate.

The orchestra need particular mention, both as soloists and accompanists to the chorus. All played together as an ensemble and knitting the whole work in one. The 'cello, flute and oboe obligatos were notably executed.

The whole evening was under the direction of Mr. Eric Weatherill. Under his clear and steady beat a thoughtful interpretation was obtained. In congratulating and thanking him on his first concert with us we should like to welcome him to Guy's. May his association with the music club inspire them to even greater heights.

J.W.H.

Concepts of Speech Therapy

By LEONARD WILLMORE

Speech Therapist to Guy's Hospital.

ONLY in recent years has any attempt been made to formulate a unified body of knowledge covering the wide field of speech pathology and therapeutics. Speech involves psycho-physical processes of almost incredible complexity, and a full appreciation of its neurological and psychological implications must wait upon a deeper understanding of psychosomatic problems. This applies particularly to morbid manifestations of the language faculty—if one may be permitted to use a word so out-moded as " faculty "! Much brilliant work, however, has been done by physiologists, neurologists, psychologists and speech therapists, in this field.

The College of Speech Therapists.

The founding, in 1945, of the College of Speech Therapists, London (Patron : His Majesty The King), was an important step toward creating an independent profession, with scientific and medical support, for the purpose of studying and treating speech disorders of all kinds. The College is the sole administrative and examining body in this country for the profession of speech therapy. Training is of a strictly medical nature, not concerned with cultural or artistic aspects of speech. It includes a study of dysphasia, dysarthria, cerebral palsies and other neurological conditions, stammering, disorders of phonation and articulation, cleft palate, and production of audible speech following total laryngectomy. The treatment of developmental disorders and stammering in childhood is of particular importance. By no means all cases which come within these categories are suitable subjects for speech therapy but many can be helped who in the past have had no adequate rehabilitation following medical or operative treatment.

Regular speech clinics are held in the larger hospitals under the National Health Service, and special provision is made for children by the School Medical Services. I shall not attempt to do more than outline a few of the basic concepts of speech and speech therapy. No reference will made to the problem of stammering, which requires fuller consideration than can be given in a general review of this kind. I hope to deal with current views on this subject in a later paper.

In the cerebral cortex there develop " centres " or nodal points concerned with the reception and interpretation of auditory stimuli which form the symbolic material of language. Association pathways link these areas with other and lower centres and, finally, to effector organs via certain cranial nerves. If developmental defect, injury or functional disturbance occurs in one or more of these areas, there will be interference with language in its receptive or expressive aspects—or in both. It is not surprising, therefore, that there are many causes of abnormal speech. I shall refer briefly to some of the main types, and indicate general principles of treatment.

Speech in Childhood

Consideration of the development of speech, and of certain speech disorders in young children, throws light on the nature of some of our problems. The etiology of speech disorder or delay in children can seldom be traced to a single root. It may arise from general physiological retarding or early illness, and it is usual to find considerable variation in the age of speech readiness as in maturation generally. Abnormal speech due to actual mental defect, sub-normality, or deafness will not be dealt with here. Normally, a child passes through the stages of crying, babbling, and oral play before meaningful words are used. If the stage of verbal communication is reached before sensory and motor patterns are reasonably stable the resulting utterance will be more or less disordered. These cases range from innocent " baby talk " to multiple dyslalia (idioglossia) in which an intelligent child of 5 or 6 (sometimes older) is almost unintelligible. Articulation of all speech sounds *in isolation* may be intact. The ability to reproduce the " moving pattern " of connected speech presents the difficulty. Harry Hemsley's " Little Horace "

is a caricature of the dyslalic child only in that he is a figure of fun to himself and his friends. Such children, in fact, are often emotionally and psychologically disturbed, and the handling of general maladjustment forms an important part of clinical work. These cases of specific language disorder illustrate the basic processes of symbolisation and expression operating in speech, and are sometimes diagnosed, rightly or wrongly, as cases of " congenital aphsia " sometimes diagnosed, rightly or wrongly, as " congential aphasia " or " congenital auditory imperception."

Utterance of a complete sentence, or, in fact, of a single word, involves a succession of acts : an organised pattern extended in time. This concept of continuous performance is basic in all organised behaviour, and its revelance to speech is seen in developmental defects as it is also clearly demonstrated in dysphasia in adults. Granich puts the matter clearly when he says : " There is involved, first, inhibition of all stimulations and all impulses not concerned with the performance of the moment, such inhibition to be released only when the performance is completed and its end result attained. Only when a particular step in the performance is sensed to be satisfactorily carried out does the next step develop . . . . The chain of events involves not only motor brain areas and muscle groups, but also the sense organs and sensory projection areas." Thus, orientation, or " set," for the act of speech is seen to involve almost the entire brain.

It will be clear that cases of general developmental speech disorder cannot be regarded merely as defects of articulation. There may be many factors contributing to the condition, and each must be taken into account in diagnosis and treatment. Clinical procedure is not aimed directly at speech instruction, but at motivating the child to a more normal response to language and expression as a whole. The state of affairs is often complicated by unsuitable or over-anxious handling at home, leading to negativism, exhibitionism, or other behaviour disorders. Parents, in fact, often need treatment as much as the children ! The problem sometimes requires the assistance of the psychiatrist.

Treatment includes listening games (ear-training), procedures in which speech is combined with amusing, rhythmic, and competitive activities, and a general stimulation of the child's expressive nature. Prognosis is usually good—though time-consuming ! A residential school sponsored by the Ministry of Health for severely speech handicapped children is now established at Moor House, Oxted.

Defects of Articulation.

It would be of little general interest to discuss the various types of articulation defect. These are frequently found in conjunction with, or as a result of, organic anomalies, malocclusion of teeth, high palate, nasal obstruction, mouth breathing, thumb sucking, etc. Others are solely due to incorrect habit patterns as in certain defects of the sibilant sounds (sigmatism) which may be rooted in infantile or neurotic attitudes. Cleft palate cases often require prolonged speech therapy unless the surgeon has been able to provide a competent palato-pharyngeal sphincter before speech habits are established—a not infrequent achievement in these days. The work of the plastic surgeon, dental surgeon, and orthodontist is basic, but even when structural defect remains, a high degree of normality can often be attained. Some of the most gratifying results follow operative treatment in adult life with, sometimes, the fitting of an obdurator.

The correction of faulty speech habits is seldom a simple matter. The muscular co-ordinations of speech form a complete behaviour unit, and any single act of articulation is part of a continuously changing progression in which each sound and movement is influenced by adjacent ones. To eliminate faulty habits one has to get right away from speech to establish a new phonetic experience—sensory and motor—with no linguistic associations. Many " tricks, dodges, and gadgets " are employed to this end. The new sound is then combined with others in meaningless sequences until it is sufficiently canalised to be used in words and sentences. The incorporation of the new sound in spontaneous speech is a matter of time, and it is common experience to find this the most difficult step. Newly acquired skills feel and sound " wrong " to the patient at first, and he is often reluctant to exhibit a different kind of speech, however glaringly defective his old habits may have been.

Disorders of Phonation.

The surgeon will refer suitable cases of dysphonia or aphonia for remedial speech work either to improve habitual mis-use or to rehabilitate function following operative treatment.

Paralysis or interference with the function of the recurrent nerve due to injury or pressure (as in certain thyroid cases) may prevent or disturb phonation. Even when one cord remains paralysed the other may over-step the mid-line and come into service. The aim of treatment is to relieve strain and fatigue, and attain the best possible function by remedial techniques and excerises. Two cases may serve to illustrate principles of treatment in disorders of phonation.

Case 1. A young army officer was hit by a piece of shrapnel above the left clavicle. The injury involved the brachial plexus causing temporary paralysis of the left arm, and complete aphonia due to failure of the left vocal cord. The use of the arm was fully restored but he remained aphonic for two years. He was discharged from the army. The professional and social handicap can well be imagined. He was eventually seen by Mr. Cann, who found that the left cord was, in fact, capable of functioning, and he was referred to the speech clinic. The temporary failure of laryngeal innervation had disintegrated the physiological pattern of voice production and he was unable to resume phonation. He was constantly over-blowing the glottis in an attempt to make himself heard. He required treatment of a very general kind, including relaxation, rehabilitation of body mechanics, psychological re-adjustment and progressive voice work. He regained normal use of the voice in six weeks, and is now an active member of a dramitic society.

Case II. A man of 65 who had been gassed in the 1914-18 war was left with a persistent bronchial tendency. As an ex-guardsman he was impressed by the necessity to " stand up straight," This was undoubtedly an unconscious compensation for deep inferiority feeling, and it resulted in general muscular hyper-tension which became habitual. This, together with the bronchial tendency, led to progressive dysfunction of the voice, which became hoarse and guttural. The supra-hyoid muscles were in a state of extreme tension, the larynx drawn up, and breathing very laboured. This constriction led to further irritation and congestion in the upper respiratory tract, and mis-directed attempts to conserve his voice. No evidence of organic disease was found and he was referred to the speech clinic. The long, deep-seated habit factor in this case proved difficult to disrupt. Long after he had learned to inhibit the faulty reactions while under clinical guidance, he relapsed into the old mis-use in spontaneous conversation, particularly in situations containing some degree of communicative pressure.

The individual who has acquired a faulty reaction in response to a defect or dysfunction cannot rely on his innate sensory appreciation as a guide to improved function. He has, first, to learn to " stop doing " rather than " to do." He has to inhibit old reaction patterns before projecting new ones.

Audible Speech Following Total Laryngectomy.

Perhaps the most spectacular achievement is the acquisition of " voice " following total laryngectomy. Lungs and larynx being no longer available for sound production, these patients are trained to use a substitute supply of air which is " pocketed " in the lowest part of the pharynx and released under slight pressure through a pseudo-glottis, thus making sound which is modified in the mouth in the same manner as laryngeal sound. Many patients have learned to acquire this sound by drawing on œsophageal air (belching), but as skill increases the sound appears to be made with air above the orifice of the œsophagus, thus facilitating control and fluency. This method of sound production is still generally referred to as " œsophageal speech," but it is possible to train the patient to produce " voice " without drawing his attention to belching and the result thus obtained is often more satisfactory and more easily acquired[1]. The remarkable fluency of some patients seems to be due to the utilisation of residual air within this region for vowel production and articulation of consonants without drawing on air from the œsophagus or stomach. The psychological benefit to the patient is very great. Many become justly proud of their achievement and are ready to exhibit it and use it constantly in everyday life.

All suitable cases should be given an opportunity to acquire this skill. A great deal of the credit for success is due to the patient himself. Determination and persistence are necessary, and the handling of the psychological situation by stimulation of the patient's native resilience forms an essential part of treatment.

DYSPHASIA.

Experience gained in two world wars has increased our knowledge of the psychological and neurological background of language and of methods of rehabilitation in cases of dysphasia. It is not necessary, nor am I competent to discuss the neurological implications of dysphasia. Re-training of the patient is based on an assessment of language losses and a progressive utilisation of those functions which remain partially or completely intact. Purely expressive or receptive dysphasia is rarely seen. Each case has to be treated according to the findings. Ideally, the neurologist, psychologist and speech therapist combine to plan the programme of re-education and one wishes it were more often possible to obtain such co-operation. The work of Goldstein[2], Weisenburg and McBride[3], Zangwill[4] and others has great value. The speech therapist can make a practical assessment on the following lines, suggested by Granich[5].

SPEECH.

(1) Paralysis or apraxia of mouth or face.
(2) Motor aphasia. Isolated sounds.
(3) Difficulty in oral word formulation.
Ability to organise " set " for words of one or more syllables.
(4) Sentence formulation (Agramatism).
(5) Difficulty in word finding.
Recall of verbal symbol for an idea (Amnesia).
(6) Specific difficulty in naming objects or pictures.

READING (Alexia and related disorders).

(1) Reduction of visual field. Blurring. Fatigue.
Improvement with large print.
(2) Visual recognition, form recognition, spacial orientation. Difficulty in keeping to the printed line.
(3) Loss of phonetic associations. Visual recognition to sound.
(4) Difficulty with specific parts of speech.

WRITING (Agraphia and related disorders).

SENSORY LOSS.

Comprehension. Rapidity of fatigue, etc.

A scheme of re-training is then devised, but the aphasic patient cannot be treated as a subject for straight-forward " education." The basic aim is to bring about a condition conducive to spontaneous return of psychological processes. Expressive channels may arise from new and indirect approaches, and much depends on the general condition of the patient. Disturbing emotional reactions, confusion and fatigue have constantly to be avoided. The patient's inadequacy often extends beyond the use of language into his handling of every-day situations.

Dysphasia due to cerebro-vascular breakdown presents much the same problem as that due to any other cause. From simple beginnings it is sometimes possible to build up a useful vocabulary even in severe cases, and, in any event, the patient benefits psychologically by the knowledge that something is being done to help him.

As in other branches of remedial work, rehabilitation of speech requires consideration of the individual *as a whole*, and in relation to the environment. Speech cases frequently require prolonged treatment and the department is working to capacity with a waiting list of less urgent cases, but we welcome new patients, particularly those which give us an opportunity to improve our techniques.

I am grateful to Mr. Cann and Mr. Reading for permission to publish two cases.

REFERENCES.

1 P. M. Marland, "A direct method of teaching voice after total laryngectomy," Speech, September, 1949.
2 Goldstein, K., " After effects of brain injuries in war." London, Heinman, 1942.
3 Weisenburg, T. H. and McBride, K. E., " Aphasia." New York, 1935.
4 Zangwill, O. L., " Re-education in Aphasia : A review of 70 cases." J. Neurol, Neurosurg. Psychiat., 1946. " Psychological aspects of rehabilitation in cases of brain injury." Brit. J. Psychol., 1947.
5 Granich, L., " Aphasia : A guide to retraining." Grune and Stratton, New York, 1947.

Sport

RUGBY

JUNIOR CUP COMPETITION

Guy's "A" *v.* St. Mary's "A"

Guy's brought off a splendid win on the Teddinton ground to win the Junior Challenge Cup. As with the previous games the chief credit must go to the tremendous fire and co-ordination with which the forwards, under the grand leadership of N. du Plessis played. P.S.B. Russell, as Captain, imposed a fine spirit into the whole side and kept them going until the end of a very tiring game.

In the first half Guy's dominated the proceedings and it was completely against the run of the play that Mary's took the lead with a penalty goal. Riddolls, who played a storming game throughout, then intercepted a pass aimed at the Mary's inside-centre and was over for a try which Pritchard converted.

Keen, who was the most polished three-quarter on the field, then engineered the next try with a clever break in the centre, a beautifully placed diagonal kick which Middle took with ease and scored. 8-3. The lead was further increased by a penalty goal by Pritchard before half time.

The excitement of the second half was unbelievable. Slowly the Guy's players became tired and Mary's fought back with great vigour. Several times it looked as though they must score but each time superb defence checked them. They increased their score to six with a penalty goal. From then on they tried everything but remained unsuccessful to the end.

The team must be congratulated on a fine performance. The outstanding forwards were du Plessis, Riddolls, Burt and Kendall, while Lund and Cremin dealt with the Mary's attack in no mean fashion.

Team : J. F. Pritchard, E. James, E. D. Keen, P. S. B. Russell (Captain), B. Middle ; G. Baker, R. K. Knight ; N. du Plessis, D. Clark, J. C. Burt ; J. H. Kendall, K. Wilderspin B. Cremin, A. Riddolls W. S. Lund.

Guy's *v.* Richmond

At H.O.P. Lost 11—17.

Guy's were very disappointing in their game against Richmond. The forwards can largely be excused from this criticism as they heeled the ball from the tight regularly, thanks to Robinson's good hooking, and they obtained a major share of the ball in the line-outs and loose. Once again the erratic handling in the backs spoiled many promising moves and their slowness in attack rendered them powerless to beat a sound though by no means invincible defence. Their defensive play suffered an unaccustomed lapse, which was emphasised by the poor covering of the forwards, and the Richmond men were able to run far too far when they got the ball. N. M. Hall at his best had a ready market for his dummys in the Guy's team.

The Guy's forwards combined well in passing movements and made ground on many occasions. Richmond began the scoring with a try and Guy's equalised a moment later when Howells beat several men and passed to Hobbs who went over for a try. Once again Richmond took the lead with a penalty goal and became 9-3 up following a dropped goal. Just before half time a quick bout of passing resulted in Gray scoring under the posts. 6-9.

The game seemed to be in the bag for Guy's after half time for they were playing with the wind, down the slope, with the sun behind, and having taken the first half easily had plenty of energy. It was not long before Davies broke from a line out, passed to Burt, and Wilson was up to score the try. Davies converted. 11-9.

Richmond finished very strongly with a goal and a try to win 17-11. B. M. Gray and D. H. le Clus played their last games for Guy's.

Team : D. le Clus, B. M. Gray, W. J. Howells, G. Baker, E. James, K. Heber, R. K. Knight ; J. Hobbs, J. Robinson, C. T. M. Wilson ; C. Pook J. C. Burt ; G. Bellis, W. A. Davis, P. Rademan.

Guy's *v.* Llanelly

Away. Lost 8—17.

Guy's lost a hard open game by penalty goals when they played in Llanelly for the first time in 20 years. As was seen earlier in the season thoughtlessness led to players getting offside and excitement then did the rest.

For the most part Guy's played open rugger and tested the home defence severely at times, but there was uncertainty in the handling and combination of the backs which gave Llanelly many chances that they were not slow to take.

Guy's began well by scoring within ten minutes of the start. Heber received the ball from a heel in the loose and was over in a flash. Davies converted to make it 5-0. The lead was held for a time against increasing pressure but ultimately the defence erred and it was 5-3.

Llanelly were always a better side than Guy's after this and took the lead and increased it to 12 points before Guy's scored a penalty goal. Llanelly had registered 3 penalty goals.

After the game Guy's were royally entertained to dinner by the Llanelly Club.

ASSOCIATION FOOTBALL

INTER-HOSPITALS CUP FINAL

Guy's *v.* St. Mary's

At Tooting. Lost 1—3.

March 22nd, 1950.

Guy's were first on the attack but due to some rather ragged forward play were unable to penetrate a hard tackling defence. Cornhill did put the ball in the net but the goal was disallowed for an infringement against the goalkeeper. Sturdy was somewhat unlucky to see a hard shot go narrowly wide and Holloway miskicked when well placed. Mary's were by no means quiet during this period but most of their raids were dealt with before becoming really dangerous. A Kellehar pile-driver crashed against the crossbar, the goalkeeper thinking the ball was going over the top.

After thirty minutes play Mary's went ahead when Sullivan headed over the advancing keeper. An excellent goal which caught Guy's defence rather badly positioned.

Just before half time Guy's were awarded a penalty for a push on Holloway when he appeared well placed to head a hard centre. Matthews shot the ball low into the corner of the net.

With the scores level Guy's kept up the pressure in the second half but were again unable to convert their efforts into goals. It was left once again to Sullivan to regain the lead for Mary's . He received the ball on the edge of the penalty area and, being for the moment unmarked, lobbed the ball just inside the upright.

Kellehar clinched the issue five minutes from time, when, from five yards, he was given time to pick his spot and unleashed a drive that was in the unstoppable class.

Thus the Cup left Guy's after a year's sojourn and went to a side who, although they had only 30 per cent of the play, converted their chances into goals and on this account were worthy winners. Well done St. Mary's.

Team : A. Fearn, D. Lipington (Capt.), W. Howells ; D. Matthews, D. Allan A. Swift ; B. Cornhill, C. Leckie, M. Bishop, E. Sturdy, P. Holloway.

Hospital Information, etc.

NOTICES

APPOINTMENTS VACANT

Applications are invited for the post of **Registrar,** part-time in the **Department of Psychological Medicine,** with attendance on five sessions per week—grading Registrar 1st year. The duties will include investigation and treatment of adult in-patients and out-patients under the direction of the senior staff. The post offers many opportunities for post-graduate study. Forms of application are obtainable from the Dean, Guy's Hospital Medical School, S.E.1., and should be forwarded to him, together with copies of three testimonials, not later than 15th April, 1950.

Applications are invited for the appointment of **Assistant Physician to Guy's Hospital.** The appointment will be a part-time one with attendance on not less than five sessions a week. The appointment is of consultant status, and applicants are required to hold higher qualifications. Applications, together with the names of three referees, should be submitted to reach the Superintendent, Guy's Hospital, S.E.1., not later than 17th May, 1950, from whom copies of the Standing Orders for the appointments are obtainable.

PASS LIST

SOCIETY OF APOTHECARIES OF LONDON

Final Examination.
March, 1950.

Surgery.

*A. C. de B. Eksteen *C. R. Lynn

* have completed the Examination.

CONJOINT BOARD

First Examination.
L.R.C.P., M.R.C.S.
March, 1950.

Pharmacology.

V. Ainsworth	T. G. R. Jones
R. W. Brotherwood	M. M. Levene
C. V. Buller	W. A. Matheson
E. E. Clapham	E. Morrison
J. W. Comper	P. O'Gorman
W. F. Dummer	H. F. Pile
P. S. Elias	J. E. Rees
P. M. Hardiman	H. S. Reeve
E. R. Herz	S. H. Richards
P. O. Hirsch	W. A. St. John
B. G. Jackson	A. Ross
E. M. James	E. C. Spencer
J. V. Jeffs	M. Tun Shwe
G. J. John	

UNIVERSITY OF OXFORD

Hilary Term, 1950

Forensic Medicine and Public Health

E. J. Elkington J. E. K. Moore

Special and Clinical Pathology

E. J. Elkington J. E. K. Moore

UNIVERSITY OF CAMBRIDGE

Lent Term, 1950.

Pharmacology.
W. G. Davies

APPOINTMENTS

W. D. Brinton, B.M., M.R.C.P., Consultative Physician (part-time) to the Winchester Group of Hospitals.

R. F. Pusey, B.D.S. (Lond.), M.R.C.S., L.R.C.P., Consultant Assistant Dental Surgeon, Queen Elizabeth and General Hospitals, Birmingham.

INDEPENDENCE DAY HONOURS

The title of Thiri Pyanchi has been awarded to Lieut. Colonel Min Sein, O.B.E., Burma.

PAPERS BY GUY'S MEN

Barber H. W. and another. Light Sensitization. *Proc. Roy. Soc. Med.*, 1950, **43,** 65.

Bookless, A. S. Thoracic Amœbiasis. *J. Roy. Army Med. Corps.*, 1950, **94,** 52.

Brock, R. C. Post-tuberculosis, Bronchostenosis and Bronchiectasis of the Middle Lobe. *Thorax*, 1950, **5,** 5.

Cutler, Robert. Immediate Replacement of Denture Clasps. *Brit. Dent. J.*, 1950, **88,** 159.

Fripp, A. T., Tanner, W. E. and another. Injuries to the Professional Association Footballer. *Pract.*, 1950, **164,** 298.

Handley, W. Sampson. Sternal Secondary Deposit of Breast Cancer Treated by Radium Implantation. Patient well 24 years later. *Proc. Roy. Soc. Med.*, 1950, **43,** 83.

Knot, F. A. Bacteriology. *Brit. Encycl. Med. Pract.*, Ed. Rt. Hon. Lord Horder. *Med. Prog.*, 1950. Part I Critical Surveys. p. 52. Butterworth, London.

Layton, T. B. Acute Otitis Media with Discharge. 3. Ear Mopping. *Nursing Times*, 1950 (March), 261.

MacManus, Desmond. Some Reflections on General Medical Practice in the Past Thirty-five Years.

BIRTHS

BAKER.—On March 19th, 1950, at the Jessop Hospital (Private Wing), Sheffield, to Mollie (*née* Thickett) wife of Dr. James Baker—a daughter.

O'KEEFFE,—On March 23rd, 1950, at 15 Acol Road, N.W.6., to Isabella (née McNeill) wife of Declan O'Keeffe—a brother for Barry, Jeremy Howard.

SARTORY.—On February 24th, 1950, at Chiswick Maternity Hospital, to Pamela (née Johnson) wife of Francis B. Sartory, L.D.S.—a daughter (Elizabeth Lillian) a sister for Geoffrey.

SAUNDERS.—On March 17th, 1950, at St. Helena Hospital, Shorncliffe to Rosalie (née Connell) wife of Brian S. Saunders L.D.S.—a daughter.

WARREN.—On March 5th, 1950, at Mason's Hill Maternity Unit, Bromley, to Constance Mary (nee Archer) wife of J. L. Warren, M.B., B.S., D.R.C.O.G.—a daughter.

MARRIAGES

STEEL—FUDGER. On March 15th, 1950, at Newport, Isle of Wight, Francis L. D. Steel to Moira Elizabeth Fudger.

DEATHS

BROWNE.—On March 20th, 1950, Robley H. J. Browne, Surg. Capt. R.N., O.B.E., of Hampden House, Gt. Missenden, Bucks.

FOREMAN.—During January, 1950, Joseph Foreman, M.R.C.S., L.R.C.P., of The Astor, Macquarie St., Sydney, Australia, aged 98 years.

GIBSON.—On March 24th, 1950, at Greenaway, Kingswood, Surrey, Charles Stanley Gibson, O.B.E., M.A., F.R.S. Emeritus Professor of Chemistry, University of London, at Guy's, aged 66 years.

STURDY.—On March 10th, 1950, Harry Carlisle Sturdy, M.D., M.B., B.S., of Lindsey Cottage, Bognor Regis, Sussex. aged 73 years.

FDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1611 *22nd April, 1950* *Ninepence*

PASSIM

THE tremendous advance which has been made in American medicine during the last thirty years has not been adequately recognised by the British medical profession. No comparable advance has been made in this country and the world supremacy once held by Britain has, to a considerable extent, passed into the hands of the United States.

There are some fields, notably surgery and clinical medicine, in which we can still match the competence of our trans-Atlantic colleagues. Of these few departments we tend to make much. Indeed, to some it might seem that we are more conscious of the few specialities wherein we still lead than of the greater number in which we fall behind. Let us add here in the light of recent controversy that whatever one's views on the National Health Service the time to quote it as a momentous medical advance will not be until it has become an efficient service capable of operation without prejudice to the nation's economy.

In the minds of many people the explanation and the excuse for British decline from leadership in the medical world is the same explanation and excuse offered for our decline in political influence among the nations of the world—*viz.*, the strain upon our manpower and our economy resulting from two world wars. In medicine at least we cannot and should not accept this excuse. Medical research requires two things, brains and equipment. The equipment and funds available for research in this country are admittedly not on the scale available in the United States. A great deal of research, however, and research of the most fundamental and far-reaching kind requires but little equipment. Brains, deep thought, penetrating insight, shrewd observations, a critical faculty, all these exceed in importance the most elaborate laboratory paraphernalia and the most formidable teams of technicians. Indeed they are the indispensable complement of research carried out upon a scale however grand or however modest. The British physiologists that led the world did so with their mental powers. British surgeons led and still lead the world because their skill and brains and their judgment are hardly matched and certainly not surpassed in any other country. Without the personal qualities we have described neither the opulence of an oriental prince, the fortune of a John D. Rockefeller, nor the resources of a nation's treasure have power to further medical research.

We do not underestimate the importance of money in this field. It can ease the power and speed the task of every worker. Our fear is that lack of funds may become the excuse for lack of one thing even more vital to research—enthusiasm. We see in this country no great evidence of any such enthusiasm outside those departments where research is the major occupation. The student bent upon carrying out some original investigation himself is likely to be regarded as something of a curiosity by his friends. His American counterpart would only be regarded as curious if he displayed no such interest.

The training of British and American medical students differs considerably. It may be that our students have less time available to interest themselves in these things. It may be that they have less inclination or it may be that they have less encouragement. Which ever it may be it is important that research shall be constantly encouraged. Attitudes of mind commence early to be formed and only gradually become developed. If we are to regain our once predominent place in the field of medicine we must review our attitude to medical research not only as a feature of our profession but as an influence from an early stage in the training of our rising generation of doctors.

The Scope and Limitations of Electroencephalography in Clinical Medicine

By M. J. PARSONAGE, M.B., M.R.C.P.

INTRODUCTION.

IN common with many hospitals thoughout this country, and indeed the world, Guy's has recently been equipped with an electroencephalograph. This instrument is of modern design and has been supplied by the Edison Swan Electric Company. Its installation and stabilisation has been carried out over the past few months, preliminary trials have been completed, and it is now available for routine clinical usage.

As the procedure of clinical electroencephalography is still relatively new and unfamiliar, this review has been written in attempt to outline its scope and limitations. This is by no means an easy task considering the vast literature already existing on the subject, and distributed throughout a wide variety of technical and clinical journals published in many countries. Also, there are large numbers of enthusiastic workers daily engaged in trying to increase the precision and scope of application of this method of investigation. In clinical medicine electroencephalography is no more than an accessory method of investigation, and can never replace or supplant the clinical approach to a patient. The information which it may give cannot be fully appreciated except by a consideration of the clinical aspect of the problem in which it is employed, using the so-called method of biological relativity (Frank, 1948). Furthermore, it has to be remembered that there are a few patterns of record which do not have several possible interpretations.

HISTORICAL.

Historically, the earliest beginnings of electroencephalography may be said to have occurred in 1874 when Caton, an English worker, discovered evidence of electrical activity in the brains of living animals and was convinced that it was related to the functional activity of this organ. In 1890 Beck showed that the visual cortex of the dog exhibited large fluctuations of electrical potential when the eyes were illuminated. Fleischl von Marxow claimed that he had made similar observations in 1883, although his results were not published until seven years later. Gotch and Horsley in 1892 reported upon the electrical activity of the cortex in their study on localisation of function in the mammalian nervous system. In the same year Beck and Cybulski showed that local injury to the cortex modified its electrical activity, as did peripheral sensory stimulation. The latter finding was later confirmed by many other workers.

Neminski was the first to use the string galvanometer for recording cortical potentials, publishing important results in 1913, and again in 1925 when he coined the term "electrocerebrogram." Hans Berger of Jena was, however, the first to record the electrical activity of the human brain. This he did in 1924, and his initial report published in 1929 was received with incredulity. Nevertheless, he continued his work during the subsequent years, and by 1934 had described alpha and beta waves and several other of the now familiar features of the "electroencephalogram," this term b ing originated by Berger himself. In this same year Adrian and Matthews confirmed Berger's observations. They accepted his views that the potential alterations were due to the electrical activity of the cortex. Subsequently they showed that the alpha rhythm, the most easily discernible of the cortical electrical rhythms, arose from foci in the occipital lobes, and not from the whole cortex. Henceforth this rhythm was often referred to as the Berger rhythm, and the recording of cortical electrical rhythms became generally known as electroencephalography (E.E.G.). The technique has since found a wide application in clinical neurology and psychiatry, due in the main to the pioneer efforts of three main groups of workers, Lennox, Gibbs and Gibbs in the U.S.A.; Jasper, Penfield, Elvidge and Kershman in Canada; Grey, Walter, Williams, Hill, Dawson and Cobb in this country. Apart from the Atlas of Electroencephalography, first published in 1941 (Gibbs and Gibbs), there is as yet no standard text-book on the subject.

Application

The modern applications of electroencephalography in order of importance has been classified by Jasper (1949) as follows :—

1. In the diagnosis and investigation of the epilepsies.
2. As an aid in assessing the severity of cerebral damage and in localising brain injuries.
3. As an aid to the diagnosis and localisation of expanding intracranial lesions, the method of air encephalography being usually more reliable in this respect.
4. In the diagnosis of cerebrovascular lesions.
5. In the diagnosis of diffuse, infectious, toxic or degenerative cerebral disease.

To these five may perhaps be added a sixth, namely its application to clinical psychiatry. Before discussing each of these in some detail, the technique now in general usage in this country will first be briefly described.

Technique.

The record is in most instances made from the intact scalp with a series of saline-pad electrodes. These are arranged in pairs placed not more than 2 or 3 c.m.apart, so as to cover the various areas of the head, and are kept in place by means of a rubber cap, and the scalp need not be shaved. All that is necessary is to part the hair gently at the selected site which is then cleansed with a fat solvent such as ether or surgical spirit. The electrodes can be applied direct, with or without the prior application of electrode jelly, which helps to reduce skin-electrode resistance. When a record is made the potential differences between adjacent pairs of electrodes are fed into a series of condenser-coupled thermionic amplifying systems. These ultimately work a series of ink-writing oscillographs (usually six). The record then appears as a continous tracing. An average record takes up some 150 feet of paper,perforated to enable it to be folded concertina-fashion.

A routine recording may last from twenty minutes to half an hour. The patient can either be seated comfortably in an armchair or lie on a couch, and any anxieties he may have about the procedure at the outset are allayed by explaining that he will experience little or no discomfort. No preparation beforehand is necessary as a rule, except that he should not have had any food for three hours previously, since the chances of abnormalities being revealed are greatly increased under conditions of moderate physiological hypoglycæmia. In cases of epilepsy it is not usually necessary to stop medication beforehand, but towards the end of the recording it is usual to ask the patient to overbreathe vigorously for several minutes. The alkalosis so produced may facilitate the appearance of certain types of epileptic discharge in the record.

Most modern E.E.G. apparatus has a switching arrangement so that a series of standard or other electrode placements can be used in rapid sequence without disturbing the patient. Although the E.E.G. is primarily designed to record cortical potentials, it can also be adjusted to record the potential changes occuring in cardiac or voluntary muscle, and with six channels available varying combinations of records can be devised if required.

Team work.

The practice of clinical electroencephalography depends upon a team. Basically, this should probably consist of not less than three members, Firstly the apparatus constantly needs the attention of an expert in electronic engineering conversant with the machine, and able to check its working and detect its faults. Then there is the operator who is trained in the routine taking of records, and who, besides skill in technique, needs at least an elementary knowledge of applied anatomy and physiology. Lastly there is the clinician whose main task is concerned with the interpretation of the records and the devising of special techniques to suit individual cases. The clinician should also be able to take records himself, and must be conversant with the physical characteristics of the apparatus, as this may have an important bearing on his interpretation of a given record.

All the illustrations in this review have been taken from actual records made in the hospital since the apparatus was installed.

Interpretation.

At present the use of the E.E.G. depends very largely on direct visual interpretation of the records, although the method of automatic frequency analysis designed by Walter (1944) may come to find increasing clinical application in the future.

The Normal E.E.G.

The normal E.E.G. consists of a complex pattern of waves whose mode of production is not entirely understood. The waves are, however, generally regarded as representing oscillating changes of electrical potential from masses of brain cells and a concomitant of th ir biochemical activity. The frequencies of the electrical potentials seen in the normal adult E.E.G. range from about 8 to 30 cycles per second (c/s) and have amplitudes varying from 5 to 50 microvolts. The most conspicuous of these wave forms is the alpha rhythm which has a frequency ranging from 8 to 12 c/s in normal individuals. It is characterised by the fact that it arises from symmetrical foci in the parieto-occipital regions, spreads forward into the central and frontal regions and (in most normal individuals) is inhibited by visual attention (Fig. 1). Rhythms

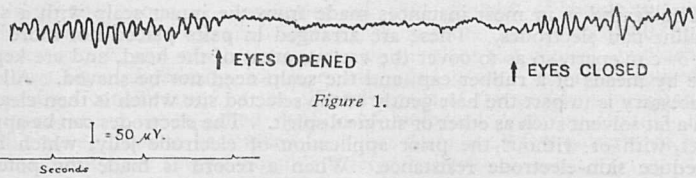


Figure 1.

of theta (4 to 7 c/s) and delta (1 to 3 c/s) frequency are not seen in the normal adult E.E.G., although they are a normal feature in the records of children, and may perhaps be seen again very late on in life. Broadly speaking, the slower rhythms predominate in early life and there is a gradual speeding up until the early part of the third decade when maturity of the electrical rhythms of the brain is attained. Thereafter, until later on in life, the appearances remain surprisingly constant for a given individual, so constant that it has even been suggested they be used as an adjunct or alternative to finger-print identification. The so-called beta waves, whose frequencies range from 15 to 30 c/s or more, are normally of low voltage ; they are recorded principally from the central and frontal regions. The results of their study so far have had little clinical application.

Abnormal E.E.G.'s

Criteria of abnormality in the E.E.G. have been published in the report of the council of the E.E.G. Society of Great Britain, but will probably have to be modified as experience widens. Abnormal waves may be slow, fast or a mixture of both. On the other hand they may have normal frequencies and their position, voltage or waveform may be abnormal. It is again emphasised that apart from the so-called "larval epileptic attacks," abnormal waveforms in the E.E.G. usually have no specific meaning. Their full significance only becomes evident when they are related to the clinical aspect of the problem, (and perhaps integrated with other sources of information). A further source of difficulty is that on the standards of normality laid down some 5 to 15 per cent of otherwise normal adults have abnormal E.E.G.'s while varying fractions of patients with different kinds of illnesses may have normal records at any one time. Nevertheless, it is true that many apparently normal subjects with abnormal records may be the near relatives of epileptics or psychotics, and may subsequently exhibit clinical abnormality.

Epilepsy—General Considerations.

The high voltage electrical discharge in the brain during an epileptic seizure and the depression and slowing of all brain activity following in the wake of the discharge were first observed in man by Berger (1932, 1933). Further experimental observations in animals soon followed, and their clinical importance became apparent with the publication of the classical paper of Gibbs, Davis and Lennox (1935).

A great number of confirmatory studies have followed with the result that electroencephalography has become generally accepted as an almost indispensable aid in the modern diagnosis and treatment of epileptic patients, and for experimental investigation into the nature of epileptic disturbances of the brain. It has aided us in the classification of the epilepsies, and has enabled us to observe the focus of onset and spread of the epileptic process from one area of the brain to another. It is a sensitive indicator of subclinical epileptic discharges which occur between overt clinical attacks. It has made possible the objective demonstration of genetic predisposition to epilepsy in the relatives of epileptic patients. At the same time it has served to broaden the field of epilepsy to include many disorders of thought and behaviour in patients who have never exhibited a true convulsion. This will be referred to again later.

At this point, however, it may be stated that the E.E.G., in epilepsy, represents no more than an electrophysiological observation, and the modern conception of this condition is based upon these observations considered in relation to the biochemical, physiological, neuroanatomical and clinical aspects. It is therefore only with extreme caution that brain waves can be related to clinical manifestations, biochemical alterations of nerve tissue, etc.. A clear distinction should therefore be made between abnormal brain waves and specific clinical diagnoses.

The epileptic discharge.

The principal feature of epileptic discharge in the E.E.G. is the sudden appearance of high voltage waves which may show a wide variety of forms. Essentially, such outbursts represent epileptic activation of nervous tissue, and this differs from the normal excitation of the cortex via afferent channels which produces a decrease in voltage of the " resting " cortical activity. The normal excitation is thought to be due to de-synchronisation of the simultaneous beating together of masses of cortical cells. It is the converse of epileptic activation in which the synchronous activity of the cells seems to become augmented. Jasper has used the term " hypersynchrony " to describe this phenomenon. Lennox and Gibbs on the other hand have used the term " paroxysmal dysrhythmia," but this implies an abnormal frequency of rhythm as the primary feature of epileptic discharge, whereas Jasper (1947) states that all normal rhythms of the brain have been observed to form a part of a true epileptic outburst.

In addition to hypersynchrony, the epileptic discharge shows other important charateristics. It tends to be apparently self-initiated and self-perpetuated. A focal discharge may remain confined to a very small and superficial area of cortex, but with increase of the discharge spread occurs in two ways, firstly along neuronal pathways, and then probably by direct electrical activation of adjacent tissue. It can be initiated or arrested by afferent stimulation, as in the so-called reflex epilepsies. It has been sh own that sub-clinical epileptic discharges in the E.E.G. may be associated with impulses streaming down the motor pathways, even though no muscular movements can be detected by the eye, and also that any portion of brain occupied with epileptic discharge is for the time being unable to perform its normal function properly.

The advent of the E.E.G. has done little to assail the time-worn distinction between symptomatic and idiopathic epilepsy. Penfield and Erickson (1941) have, however, clearly shown that many cases of so-called idiopathic epilepsy have lesions demonstrable at operation as their cause. Extremists have said on the one hand that all epilepsies are symptomatic, and on the other hand that they are all determined by a genetic predisposition, being precipitated rather than directly caused by the known noxious agents. For the present, however, the distinction between these two main groups remains convenient, and the E.E.G. has already proved of considerable value in the differential diagnosis.

Symptomatic Epilepsy.

The diagnosis of symptomatic epilepsy becomes probable when a persistent single cortical area of onset for the epileptic discharge has been established. This may be possible on clinical grounds if the epileptogenic lesion for eaxmple is situated in the sensori-motor area, but it may be placed in many other areas of the brain, as a result of which the clinical manifestations are far from obvious.

Under such circumstances the E.E.G. may be an invaluable aid in localisation, often showing at the same time how extensive is the abnormality and whether secondary foci exist in other parts of the brain. In the phases between fits, these causes will show random spikes, sharp waves or delta waves, The most important of these is the random " spike " which may be regarded as the sine qua non of a superficial cortical focus of epileptic discharge.

Figure 2.

Using scalp electrodes, the spike is seen as a large surface negative (upright) wave of some 20 to 40 milliseconds duration. It is associated with a diphasic component or following surface positive wave. Sometimes the larger and longer spikes may be followed by a prolonged slow negative (inverted) wave, apparently due to a " rebound " from subcortical relay nuclei (fig. 2). The superficial random spike may be localised to an extremely small area of the cortex, but it is often conducted to adjacent areas where it appears not as a spike but as a temporarily dispersed wave which Jasper has termed a sharp wave. If conducted to still more distant areas, to the homologous area of the opposite hemisphere for example, it is seen only as a rounded wave of longer duration. Clearly, sharp waves are not as valuable in the localisation of focal epileptogenic lesions as spikes, since they represent a disturbance conducted from some distance and not one occurring immediately under the recording electrodes. The random slow waves are merely a sign of abnormal function in cortical tissue, and when present alone, without either spikes or sharp waves, are not indicative of an epileptogenic lesion, although they do in fact often form the background of an epileptic discharge.

It is important to realize that these random disturbances are identical in form, no matter from what part of the cortex they are recorded. It is only when increased activation and spread occurs that the patterns seem to bear some relation to the cortical areas from which they are derived. Focal cortical epileptogenic lesions are often difficult to locate when situated on the inferior and medial surfaces of the cerebral hemispheres, unless special techniques are used. Deep seated lesions involving the basal ganglia may however give rise to bilateral rhythmic disturbances in the E.E.G. which are practically indistinguishable from the patterns usually regarded as characteristic of the cryptogenic epilepsies.

Idiopathic (Cryptogenic or Essential) Epilepsy.

In this group of the epilepsies there is no demonstrable causative lesion, and hereditary factors are usually considered to be outstanding. Here the epileptic discharges in the E.E.G. may either arise simultaneously and synchronously from similar areas of the two hemispheres, or they may occur diffusely in many cortical areas and appear relatively disoraganised.

The principal forms of E.E.G. pattern in these discharges are :—

1. The classical wave and spike complex (fig. 3)
2. The high voltage rapid rhythms (fig. 4)
3. And the diffuse slow and sharp wave patterns (fig. 5).

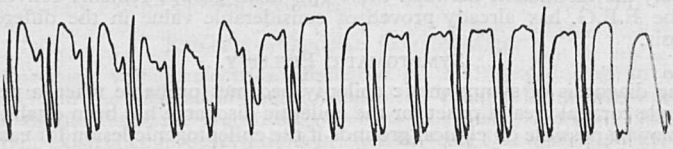
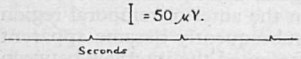


Figure 3.

Figure 4.

Figure 5.



There are also variants of these, but they are less specific for epilepsy, and are often the only type of E.E.G. disturbance found in the near relatives of patients with idiopathic epilepsy. They are consequently regarded as representing a latent form of the disorder. Although these three patterns are generally regarded as virtually specific for the cryptogenic epilepsies, it has to be remembered that they can be closely simulated by local lesions in diencephalic midbrain or nuclei, or even by toxic and metabolic disorders involving the brain. In view of this fact the E.E.G. cannot be entirely relied upon as a method for differentiating the genetic epilepsies from those due to pathological processes involving the brain as a whole or to deep midline lesions. It may be that ultimately, as the knowledge of ætiological factors in the cryptogenic epilepsies grows, fewer and fewer patients will have to be included under this heading. However, for the present, these three patterns continue to be generally regarded as the most typical of the idiopathic or cryptogenic epilepsies.

THE RELATION OF THE E.E.G. PATTERN TO THE TYPE OF CLINICAL SEIZURE.

In considering this question it is important to make a distinction between the E.E.G. changes observed actually *during* a seizure, and those observed between seizures. It has long been recognised that specific patterns are seen in the E.E.G. during a clinically observed grand mal, petit mal or so-called psychomotor seizure, but it was not at first realized that the presence of these patterns in the interseizure records (the so-called "larval" epileptic outbursts), could not be relied upon as a means of predicting the type of attack a given individual was likely to suffer from clinically.

Grand mal.

During the tonic phase of a generalised grand mal convulsion high voltage fast waves are invariably seen in the E.E.G., and they become grouped into interrupted bursts during the clonic phase.

Petit mal.

Similarly, during a typical petit mal attack, characterised by transient clouding of consciousness and associated with little or no convulsive movement, the familiar 3 c/s "wave and spike" pattern is seen.

Psychomotor attacks.

The criteria for the diagnosis of the psychomotor attack are less clearly defined, and have been recently reviewed (Hill, 1949); broadly speaking, however, these attacks consist of automatic co-ordinated behaviour for which there is subsequent amnesia, and in these the E.E.G. pattern is characterised by generalised rhythmical activity at 6-8 c/s showing a progressive increase in voltage, the frequency later gradually falling to reach 2 c/s.

When each of these three kinds of attack (i.e. grand mal, petit mal, psychomotor) occurs in uncomplicated form the discharge shows a bilaterally synchronous onset in the E.E.G. Although certain general areas of the brain may however seem principally involved, no specific unilateral cortical focus of onset can usually be determined in either a typical generalised grand mal or a petit mal seizure. This, though, is not so strictly true in all cases of psychomotor seizure. When, however, the interseizure period is considered, the interpretation needs to be more guarded. Thus Gibbs, Gibbs and Lennox

(1943) have stated that in six per cent of patients who have suffered from clinical grand mal alone, wave and spike complexes are seen in the interseizure E.E.G. Moreover the 3 c/s wave and spike complex may mark the onset of a grand mal seizure, and Jasper (1947) reports he has observed high voltage rapid waves preceding the onset of wave and spike complexes and a form of petit mal seizure.

Psychomotor epilepsy.

The question of psychomotor epilepsy has undergone recent re-consideration. Gibbs and his collaborators (1937) originally held that there was a close correlation between psychomotor attacks and four per second square topped waves. Later these observers modified their original description and observed that a focus of spike potentials could be found in the anterior temporal region of one or other hemisphere in these cases. It subsequently became apparent that the square tops appearing on the record represented the intervals between spikes and not the crests of waves, and in fact a spike focus firing repeatedly in almost any situation may give rise to this appearance. In a recent survey Hill (1949) found that nearly thiry per cent of patients suffering from psychomotor attacks alone had spike or sharp wave foci in their interseizure E.E.G.'s but that although these occurred most commonly in the temporal areas they were also found in other regions as well. He laid emphasis on the diversity of clinical manifestations classified under the heading of psychomotor epilepsy and the diversity of underlying ætiological factors. There is clearly a relationship between the functions of the temporal lobe and this kind of seizure, since lesions and epileptogenic foci in this and closely adjacent areas precipitate psychomotor seizures more readily than those in other brain areas. Hill suggests this may perhaps be due to the greater readiness with which impulses are conducted from the temporal cortex to some deeply situated central pacemaking mechanism. Certainly the same caution in interpreting the significance of temperal lobe spike foci in interseizure records is required as when dealing with wave and spike patterns, since the former are not specific for psychomotor seizures or even for idiopathic epilepsy.

These facts indicate that patients with generalised seizures may exhibit more than one form of E.E.G., and the reasons for this are by no means clearly understood as yet. Certainly there are considerable grounds for questioning any rigid distinction between petit mal and grand mal epilepsy ; thus as early as 1936 Gibbs, Lennox and Gibbs stated that they regarded them as closely related disorders, and more recently Jasper (1947) has expressed the opinion that the difference may be quantitative rather than qualitative. Alternatively, when epileptic activation occurs, the difference in form of electrical discharge may be due to differences in the particular areas and circuits involved in the brain. However, it can certainly be said on clinical grounds that *all* types of seizures, whatever their causes, may develop into generalised convulsions, and the E.E.G. findings in general entirely confirm this.

In the most recent investigations it has been shown that the E.E.G. will exhibit some form of abnormality in ninety to ninety-five per cent of epileptic patients, provided that the examination is sufficiently thorough, and that in certain selected cases use is made of the special activation techniques which will not be discussed here. Under such circumstances the E.E.G. abnormality will be sufficiently definite to confirm the diagnosis of epilepsy in this high percentage of cases, but it is stressed that the diagnosis should not be made on the basis of the E.E.G. alone, as it should be adequately confirmed in all cases by the presence of clinical seizures. Even more important is the assistance the E.E.G. may give in the localisation of the epileptic discharge since this leads in turn to classification and rational therapy. As regards the latter, it is now generally agreed that in the light of present day knowledge, the E.E.G. cannot be regarded as a reliable guide in the administration or control of tridione therapy as was originally believed from the earlier work on this problem. Thus clinical improvement does not necessarily go hand in hand with decreased abnormality in the E.E.G., and the presence of a wave and spike pattern in a given record cannot be taken as a reliable indication in predicting a good clinical response to the drug.

Contributions to the Genetics of Epilepsy.

Lennox, Gibbs and Gibbs have been much interested in the application of the E.E.G. to the genetic problems of epilepsy. It cannot as yet greatly

assist in decisions relating to parenthood in epileptics, but its application to the problem has resulted in a number of interesting facts being brought to light. The analysis of these facts, however, has proved difficult, and there is by no means universal agreement as to their practical implications.

Lennox, Gibbs and Gibbs (1940) have stated that they are convinced that the spontaneous electrical activity of the cortex represents a constitutional characteristic of the individual, and they have studied the records of many epileptics and their near relatives. They found the incidence of seizures among the near relatives of 2,130 epileptic subjects to be 2.4 per cent which is about five times that in the general population in the U.S.A. Only one in five of these patients gave a history of any blood relative affected with seizures. A definite dysrhythmia in the E.E.G. was found in 60 per cent of 183 of these relatives, as opposed to 10 per cent in a control group. In 55 cases a record was obtained from both parents, and in 35 per cent of these both parents showed E.E.G. abnormalities, while one or more parents had a cerebral dysrhythmia in 90 per cent of cases. With regard to all the relatives who showed abnormal E.E.G.'s, the abnormalities observed were not specific for epilepsy in the majority of cases, but it is important to note that 8 per cent of these individuals showed wave and spike outbursts in their records.

Studies on identical twins have also been interesting. They show a similarity of their fundamental brain rhythms, and when one twin is an epileptic the other almost always has an abnormal E.E.G. A further point is that the epileptic twin nearly always exhibits some evidence of having experienced an aquired injury to the brain. This suggests that it is the predisposition to epilepsy which may be inherited, this often being manifested by a cerebral dysrhythmia (Lennox, 1945). This is also to some extent supported by the observation of Williams and Sweet (1944) that in a series of individuals who had exhibited ether convulsions 75 per cent had abnormalities in their E.E.G.'s.

The practical application of these facts is at present very limited. In the light of present knowledge all that can be said is that the chances of an epileptic parent having offspring similarly afflicted is about one in forty. This is providing that the other parent is normal. The chances of a child being epileptic appear to be lessened if there is an absence of epilepsy or migraine among blood relatives, if the parents do not have abnormal E.E.G.'s, if the epilepsy in the affected parent began after infancy or childhood, if there is a history of brain injury preceding the seizures, and finally if the afflicted parent has been of normal mentality since birth. Lastly, it is believed that the union of two individuals both carrying a predisposition to epilepsy, as judged by their E.E.G.s and family history, is more likely to result in epileptic offspring than is the union between an overt epileptic and a partner who carries no such predisposition. Nevertheless, this statement cannot yet be expressed in reliable figures.

Narcolepsy.

Most E.E.G. observers have found that during the sleep phase of a narcoleptic attack the changes are identical with those which can be recorded from any normal person exhibiting physiological sleep. In the early stages low voltage 18-25 c/s waves make their appearance, but as sleep progresses slow wave discharges come to dominate the record, and in deeper sleep 14 c/s discharges also occur as a transient phenomenon. Blake, Gerrard and Kleitman (1939) believe that the chief distinguishing feature between normal and narcoleptic sleep is the precipitous onset of the latter.

Although the narcoleptic subject will frequently fall asleep while an E.E.G. recording is being made, this is not always the case, and since the appearance of sleep rhythms is not certain evidence of abnormality, the characters of the "interseizure" records are of some importance. Dynes and Finley (1941) in a study of 22 cases came to the conclusion that such records show no characteristic similarities to the wave patterns seen in epileptics, but Cohn and Cruvant (1944) in a study of 10 cases state that the E.E.G.'s showed abnormalities qualitatively similar to, but quantitatively less prominent than, those found in the records of epileptic subjects. The changes they found were alpha frequencies varying from complete dominance to almost complete absence, bursts of high voltage slow waves, and an epileptic type of response to overbreathing.

(To be concluded)

The Third Journey

By DAVID STAFFORD-CLARK

THE first day on the Grand Canyon Ltd., the train which I was taking from Chicago to Los Angeles, was spent in crossing the flat wheat fields of the Middlewest, through Illinois, Missouri and Kansas. I got off the train at Topeka, Kansas, to stay there overnight and spent the following day at the Menninger Clinic. Despite its fame and wealth, this clinic is still housed in a number of converted farmhouses and embraces a separate children's school built along similar lines. It was a pleasant and instructive day, enlivened from a climatic standpoint by a combintaion of almost all possible weathers ; when I arrived at the clinic in the morning the cab which brought me there had to slither and plow through one of the fiercest blizzards of snow and hail that I have ever seen. Later in the day bright sunshine, soft powdery snow, a thunder storm and then a strong wind blowing over the plains at sub-zero temperature followed one another, to be succeeded by a clear cold sunset. I boarded the next day's edition of the Grand Canyon, Ltd., that evening at 11.15 p.m., and awoke the next morning to find the train rolling through the Panhandle Area of Texas. We had crossed Oklahoma during the night, and the scenery now consisted of an apparently limitless expanse of flat prairie marked occasionally by oil wells and installations, otherwise as devoid of any sign of human or animal existence as the surface of the moon. Texas is not only the largest, it is also one of the most varied states in the Union, and now probably the wealthiest. But this part of the State, called " Panhandle " because it represents the north rectangular projection of the State boundary into Oklahoma, is certainly the least spectacular. Beneath its surface are millions of gallons of oil : it has little else to commend it to the visitor.

At noon just before crossing the border into New Mexico, we again put our watches back an hour ; this represented the second alteration needed in crossing the continent to the West and was to be followed by a third later in Albuquerque.

The scenery had already begun to change by the time the train entered New Mexico, and the weather, which had been predominantly arctic, had now the quality of spring. At Clovis, in New Mexico, the train stopped for twenty minutes and the passengers emerged to stretch their legs in the sunshine. Indians, suitably clad in traditional costumes for the benefit of the tourists, roamed to and fro offering silverware and rugs, as well as postcards of themselves. Many of the passengers crowded around a small stall selling coffee and various oddments to eat as though stoking up for the rest of their journey. A little later they were able to approach their lunch in the dining car, their vigour unimpaired. One of the ways in which I realised how long I had been away from England was this evidence that food freely available everywhere was no longer a source of attraction to me. As the train crossed New Mexico, the country became increasingly mountainous and rocky. Cactus, tumbleweed and sometimes a flowering thorn bush grew alongside the track, while the rising hills, often flat-topped as though cut off with a knife, were separated by clumps of scrub and sandy desert. Sometimes we would pass a herd of white-faced longhorn cattle ; sometimes there would be a few scattered Indian dwellings, rectangular flat-topped little boxes made of adobe with a small brick oven shaped like a beehive about twenty paces from the door. Some of these Indians, despite their primitive houses, have motor cars parked beside their lonely dwellings, looking faintly incongruous. At one point a signboard close to the railroad track drew my attention. It read, " Dead animals, cattle, moose etc., removed free. Phone Albuquerque 3-0764."

We had spent almost the whole day crossing New Mexico. The colour of the desert varied from yellow to red to grey and back to yellow and red again; the hills grew higher, forming long shadows in the setting sun, their tops rimming the horizon. The train ran through rocky canyons and deep gorges, curving and recurving upon its tracks. The cacti were larger, the scrub thicker, as we approached the rivers which are tributaries running into the Rio Grande. Early in the evening we crossed into Arizona and here again

were patches of snow powdering the tops of the hills and the sides of the gorges. The strangeness and fascination of this trail through changing scenery and changing climate gripped and enthralled me throughout the day. To travel from Chicago to the West Coast on a train can be, I suppose, a matter of routine. It can also be an enchantment.

The train rushed on through the night, and at 4.0 in the morning, the two coaches which were to be relayed to the rim of the Grand Canyon itself were detached from the train. I had chosen to visit the Grand Canyon in this section of the train which goes almost to the rim and allows the traveller a full day, from 7.0 in the morning until 9.0 that night, to spend in any way he chooses.

The Grand Canyon itself is one of the natural wonders of the world and has been described many times and under many conditions. It remains an unspeakable marvel, eighteen miles long ranging from five to thirteen miles across and a little over a mile in depth. From its floor, through which flows the Colorado River, there rises for two thousand feet on either side an almost sheer granite gorge which then flattens out into a plateau spreading towards the sides of the Canyon itself, whose north and south rim tower a further three thousand feet above the plateau. The granite gorge winds and widens through the centre of the Canyon and all about it on either side mountains of solid rock and shale, striped in coral, clay and limestone, tower towards the sky. But although their sheer mass and grandeur in this remarkable setting are tremendously impressive when they are seen from the rim of the Canyon, their vertical height escapes attention because their peaks are not quite level with the surface of the ground at the rim. On this morning in late January the snow lay inches deep right to the very edge of the Canyon and along the sinuous track of the Bright Angel Trail, which is the only means of descending from the south rim to the plateau and thence through the granite gorge to the river. This is a descent which can be made on mules with a guide. I had to do it.

It was relatively easy to arrange; I had breakfast at the Bright Angel Lodge and then went to the corral where the mules were kept. I learned that for $10.00 I could hire two mules and the services of a guide for the day which would be time enough to reach the Colorado River and return, a distance of eighteen miles, if we kept going reasonably well. It seemed wise not to disclose that my own riding experience was negligible, unless you count a couple of donkey trips on the sands in childhood and two riding lessons early in the war when in common with some other Residents, I had spent the first three months at a Sector Hospital in the country studying the delights of the country gentleman. My guide was a man of few words. He invited me to adjust the girth and stirrups to suit myself, then to mount, which I succeeded in doing without facing the wrong end of the mule, a contingency which I knew from experience could only be avoided by careful forethought. As I have hinted, I do not claim to be an experienced horseman. When I was sitting on the mule it already seemed to me that I was about as high off the ground as it was prudent to be. The guide gave me a cursory glance, nodded, clicked his teeth, and he and his mule trotted over the side of the Grand Canyon, disappearing completely almost at once. Torn between apprehension and a desperate resolve to do whatever might be expected of me, I gave my mule a nervous kick in the ribs, whereupon he trotted briskly after the guide. Before I had time to repent my rashness, both mules were picking their way as delicately as dancers down a rocky track completely covered in solid ice, barely four feet wide and bounded on one side by an overhanging rock wall ascending to the rim which we had just left, and on the other side by a sheer drop which I would estimate as about one thousand feet vertically before the first big shoulder of the Canyon side jutted out to reveal, like a ribbon coiled beneath us, a lower segment of the trail.

To say that this appeared altogether alarming would be not simply an understatement, but an oversimplification. It was, I will freely admit, rather a terrifying situation; but it was also one of the most exhilirating and unforgetably exciting experiences I have ever had. I can only compare it both in intensity and nature to making one's first parachute jump from a tethered balloon. I found memories of that earlier and comparable blend of ordeal

and ecstasy returning to my mind, as in silence broken only by the clink of harness and the crunch of the mules feet over the ice, we jogged downwards, turning in a hair-raising acute bend every fifty-yards or so as the trail zig-zagged down the side of the Canyon wall. As the mules turned in their own length on each of these bends, the guide vouchsafed his first remark: "Lean outwards when your mule's goin' round these bends; folks tends to lean in, but if they do their weight throws the mule too fer out and he's liable to stumble."

I made no comment. I could think of nothing appropriate, nor could I have uttered it if I had. For the first half dozen or so of these bends, I found it absolutely necessary to think of something else as, dutifully, yet against every rebellious instinct, I leant outwards, my shoulder seeming to sway out over the abyss like the grasses blown by the wind on the very edge of a high cliff. I thought of the summer evening when I had stood upon the edge of the swaying platform beneath an amiable, cowlike barrage balloon whose silvered sides glowed faintly in the fading light, while below, away somewhere on the ground, a red flare spluttered showing the direction of the wind's drift. Then, as now, I had wondered what an earth had induced me to do it; then, as now, I knew that having come so far, there was no turning back; and was glad of it. In neither case was the statistical risk worth mentioning; a parachute fails to open less than one in seven thousand times; and although some strange things have happened on the Bright Angel Trail, my guide told me later, when we were eating a picnic lunch beside the Colorado River, that as far as he knew neither man nor beast had ever fallen from the path. All of which serves merely to emphasise for me the distinction between the validity of statistics as an index of probability in a series, as opposed to their application to a particular case. Statistically, I was safer on that mule than crossing the street; but if I felt like that every time I crossed the street, I should be in grave danger of developing an Adaptation Syndrome.

Eventually we reached the plateau, and there we stopped and rested the mules in a little clearing called the Indian Gardens. The guide broke the silence for a second time to point to a delapidated shack and inform me that this was the Rest Room. In America there are practically no lavatories; there are Rest Rooms for gentlemen and Powder Rooms for ladies. There was a shack next to the Rest Room equally delapidated which my exploratory tendencies led me to discover was a Powder Room. We remained in the Indian Gardens for about a quarter of an hour while the guide made some coffee. Three small deer came and regarded us silently. When we resumed our expedition they followed us for a little way before trotting off into some bushes on one side of the trail. Here there was no snow; instead, wild flowers grew among the rocks and cactus on either side, and it was pleasantly hot. After we had ridden about four miles from the rim of the Canyon we entered a narrow rocky cleft in the plateau which followed a stream winding down gradually until suddenly there was the sound of a waterfall and almost at once we rounded a cleft in the gorge. The guide reined in his mule, and we were standing on the lip of the second great step of the Canyon, a sheer granite wall two thousand feet high at whose foot could be seen the distant gleam of the Colorado River. Once again there was the zigzag descent of a narrow rocky path, but this time there was no snow; instead, the mules would sometimes stumble momentarily on the loose rocky flints which littered the trail. But by now I had succeeded in overcoming most of my apprehension and had also established a kind of working understanding with the mule which I can neither describe nor explain, but which afforded considerable comfort to both of us. Three and a half hours after leaving the rim we were at the River. I dismounted and found, as I had begun to suspect, that I could neither sit down nor stand up with any great comfort. I could, however, walk with an authentic bandy gait. The guide, who had spoken only about three times on the way down, now expanded. He told me of the method of selection of those presumed able to undertake the ride from among the visitors who wished to undertake it.

"It's quite easy," he said. "We just looks at 'em and sizes 'em up. If they're not too old and not too young, if they ain't too heavy or too scary, and if they looks as if they could sit on a mule, we let 'em go."

" Does anybody ever want to turn back ?"

" Sure, sometimes they get off and walk back, if it ain't too fer. Sometimes we lead 'em back. Sometimes they have to be blindfolded. That's if they're real scared, and it's too fer to walk. If they've never ridden before, or can't handle a mule, we'll take 'em but we tether their mule to ours."

" Do you feel you can always tell if somebody knows about riding mules ?"

" Sure. Just look at 'em, that's all."

I was doubly glad I had not volunteered any account of my own previous experience.

The return journey, nine miles of trail ascending five thousand feet back to the south rim, took four hours. On the steeper parts of the track we rested the mules about every 250 yards. We reached the top just before 5.0 in the afternoon, and while my legs were resuming a more normal shape, I leant on the edge of the corral overlooking the Canyon and watched the colours changing as the sunset lingered on the summit of the mountains beneath me. Then I went into the Lodge Bar and ordered two stiff drinks ; one for myself and one for the mule. The guide told me he never touched the stuff.

The two coaches of the Grand Canyon, Ltd., left at 9 p.m. that evening and during the night were re-coupled to the main train coming through Arizona from Texas. The next morning we were crossing the Mojave Desert which, in contrast to the deserts of Texas and New Mexico, is in part pure sand and later blossoms into wild growth which in turn gives place to orange groves and then, in hideous contrast, to oil wells and sidings before the train reaches the terminal at Los Angeles.

(To be continued.)

About the Park

During the war and in the years succeeding the war, residents of the Old Hostel gradually won for themselves a reputation for joviality, sociability, conviviality and insobriety ; last on the list of their achievements were those in the course of examinations. Attempts were many but successes were few. As a result of this the turnover of residents was slight and those in occupation became a rather closed band of good friends. Recently, however, there has been an extraordinary metamorphosis and during the last three weeks no fewer than seven of these students have forsaken their old friends and risen to the dizzy heights of qualification. What has brought about this unfortunate turn of events ? Perhaps the authorities thought it was time some of the old hands moved on or perhaps Sophie got in touch with the examiners and told them how hard her young gentlemen had been working lately.

When the wound caused by this rift has healed the Hostel will again be accepting "new boys " into its arms. Perhaps in light of these recent events the " hail fellow well met " sort of chaps who like the good things of life and drink a lot of it had better not apply for vacancies. The scholar, the bookworm and the serious-minded may find this delightful residence, ideally situated, 3 bathrooms ; H and C ; 1 sit. ; 24 bed. ; 1 kitchen, etc., more to their liking.

Who knows but that mere turn of fate over the green baize table has completely changed an important part of the Hospital social life.

Review

Aids to Anatomy and Physiology. By K. F. ARMSTRONG. 4th Edition. Bailliere, Tindall & Cox. *Price 6s.*

This text-book gives a short and clear account of human anatomy and physiology with an introductory chapter on matter and its properties. It is well illustrated and is popular with many student nurses. The 4th edition has a number of new diagrams and the subject matter has been brought up to date. The popularity of this volume of the Nurses' Aid Series should continue.

D.L.H.

Obituary

Dr. C. C. ELLIOTT.

Charlie Elliott, as he was always known, had an outstanding career throughout his life. At the South African College he was always at the head of his class, though his health was not robust. He won a Jameson Scholarship and went to Guy's Hospital; there, too, he soon showed himself to be one of the leading men of his year. He took the Conjoint Diploma and the London M.B., B.S., in 1892 and the M.D., London, in 1893. He was H.P. to Sir Cooper Perry, then Superintendent of Guy's, and while he was H.P. Sir Cooper got diphtheria and he chose Elliott to attend him. This showed the confidence in his ability and judgment which his patients placed in him throughout life.

I met him at Guy's in 1890 when he was a senior student and found he was one of the most respected men in the place for the uprightness of his character and his ability. On returning to the Cape he took an appointment as one of the residents at the New Somerset Hospital and then started in general practice at Sea Point. A few years later, on the transfer from the government to a board of the Somerset Hospital and the election of an Honorary Visiting Staff, Elliott was appointed one of the surgeons. In 1914 he gave up general practice and specialised in surgery, later devoting special attention to cranial surgery, in which he was a pioneer at the Cape.

Elliott was a man of beautiful character, beloved by his patients and friends, in truth a "beloved physician." He was transparently honest and truthful, evoking a trust and confidence which his skill and ability justified. I do not think he could say an unkind thing of anyone. His deep, religious faith enabled him to put aside the worries with which some of us in our work torment ourselves. This was far from pride or self-confidence for he was one of the most modest of men. His faith had given him the "æquanimitas" of which Osler wrote.

Charlie Elliott was a great reader, with a wide range. He was a cultured doctor, an ornament to the profession, whose quiet influence for good went far. He was not the least of a family which has done outstanding service for South Africa, inspired by an unselfish desire to do their duty.

H.A.M.

Surgeon Captain ROBLEY BROWNE, R.N., O.B.E.

Surgeon Captain Robley Browne, R.N., O.B.E., who died on March 20th had a long and varied medical career. He was born in 1863, studied medicine at Guy's Hospital in the eighties, and qualified in 1887. He entered the Royal Navy as a surgeon, remained in the Service until after the first world war, and retired with the rank of surgeon captain. During his career he was privileged to serve in the Royal Yacht, and he had many happy recollections of the spacious days of King Edward VII and Queen Alexandra. One of his last posts, and one of which he was particularly proud, was that of P.M.O. in the *Lion*, under Admiral Beatty's command. After he retired from the Navy he enrolled as a ship surgeon to the White Star Line, and crossed the Atlantic many times in the *Olympic* and other liners. He married relatively late in life. Soon after he retired from the sea his wife opened a boarding school for girls, a project in which he found a new sphere of service and interest.

Robley Browne possessed an exceptionally good memory, accurate both for names of persons and places. He disliked ambiguities and uncertainties and would take endless trouble to be sure of his facts. To the end of his life he preserved a youthful buoyancy of carriage, a quick and friendly eye, and a running flow of easy conversation. His friends knew that for more than fifty years he had kept a diary written each day in his bold clear handwritting. Within a few minutes he could refer to incidents which had occurred during the Boxer rebellion in China in the 'nineties, or to an experience when serving in the Royal Yacht, or to impressions of some celebrity encountered when serving in the White Star or Cunard Lines. Until a few weeks ago

he continued to drive his own car and to fill up his time with missions of one sort and another undertaken on behalf of others. He had a knack in engaging in these in a characteristically unobtrusive and self-effacing way, as though doing these little services as a matter of course and without any expectation of acknowledgment.

C.D.

DENIS LEONARD POWER

I should like to write an appreciation of my fellow Student and close friend, Denis Leonard Power, whose death occurred as the result of a motor accident, and whose obituary notice recently appeared in the *Journal*.

He entered Guy's Hospital Dental School from Charterhouse and qualified in March, 1939. He was a good games player and obtained 'blues' for swimming and tennis during his time at Guy's. Serving in the dental branch of the R.A.F. from the outbreak of war, he reached the rank of Squadron Leader, ultimately being attached as dental member of the team working on jaw and facial injuries, at Rawsby Hospital.

After demobilisation he joined his father in practice and by his capability gained the confidence and affection of his patients.

Denis, with his forceful personality, good humour, great personal charm and character, will be sadly missed by his numerous friends.

Denis leave a widow, Pauline and two children, and the deepest sympathy is expressed to them and also to his parents Mr. and Mrs. H. L. Power, his brother Norman and his sisters, at their irreparable loss.

D.S.

ACADEMIC

April		
		Exhibition. Surgical Department. "Breast Cancer."
25th.	1.00.	Sir Henry Holland, C.I.E., F.R.C.S.(E). Clinical Lecture. "Fifty Years of Ophthalmic Surgery on the Indian Frontier as a Missionary."
27th.	4.30.	X-ray Meeting. Gordon Museum.
28th.	1.00.	Sir John Conybeare. Clinical Lecture. "Some Practical Points in the Treatment of Diabetes."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
May		
		Exhibition. Surgical Department. "Fractures."
4th.	1.00.	Mr. Wass. Clinical Lecture. "The Principles of Treatment of Fractures."
	4.30.	X-ray Meeting. Gordon Museum.
5th.	1.00.	Dr. Holling. Clinical Lecture. "The Effects of Chronic Oxygen Lack."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
8th.	1.00.	Mr. Brock. Clinical Lecture. "Modern Cardiac Surgery."

OTHER ENGAGEMENTS

April		
29th.		Association Football. 1st XI *v.* Old Stationers. (Away).
May		
4th	1.15.	Founder's Day Service. Hospital Chapel.

Sport

HOCKEY

FOLKESTONE EASTER FESTIVAL 1950

Guy's was one of the 40 teams invited to take part in this, the premier Hockey Festival of the country. Continental, University, Services and Club teams provided a diversity of hockey styles, each team playing an average of four games in four days. Our first match was against Folkestone Optimists. In a fast game Guy's forwards lost no opportunities and avenged last year's defeat by scoring six goals against an England 'keeper, the Optimists scoring three goals. On Saturday we played the Royal Engineers. This was the best game of the series. The Sappers were the better side and deserved their two goals. On the play, however, Guy's were unfortunate not to score. We played H.O.C. (the Hague) on Sunday. The Dutchmen kindly presented us with a pennant to remind us of this keen game, which we won 3—1, thus preserving our record of defeating every Continental team we've met. The game against the South Saxons was the last of the series, this by mutual arrangement as both teams count on being somewhat the worse for three days of hectic hockey with intervals of generous fluid replacement. Dobson-Smyth had to retire with an injured nose, so Guy's played most of the game with ten men. The team however played with the zest that had characterised all their games, and which brought the fourth and last game of a very pleasant Festival to a close with a victory of 4—2.

Team : C. H. Bishop; A Jones, G. H. Danford; R. Park, C. Robinson, E. A. Murray (Captain); W. Dobson-Smyth, D. V. Duckworth, D. E. Blake, S. Earl, C. H. Opie, H. Meyer.

Results :

Friday, 7th April
Guy's *v.* Folkestone Optimists
Won 6—3.

Saturday, 8th April
Guy's *v.* Royal Engineers
Lost 0—2.

Sunday, 9th April
Guy's *v.* H.O.C. (the Hague)
Won 3—1.

Monday, 10th April
Guy's *v.* South Saxons
Won 4—2.

ASSOCIATION FOOTBALL

SOUTHERN AMATEUR LEAGUE

At H.O.P. Draw 2—2.
25th March, 1950.

A hard fought game between two rather undistinguished sides resulted in a draw. Ibis scored once in the first half rather against the run of play and increased their lead in the second half. Facing a two goal deficit Guy's increased the pressure and Mangun netted with a lovely cross shot. With time running short Mathews joined the forward line and, although playing out of position, headed what seemed a good goal, but it was disallowed for an offside infringement against a player who was not interfering with the play. With two minutes to go another cross from Matthews (how this excellent player gets around) was beautifully placed in the net by Allan playing on the wing due to an earlier injury. Apart from Matthews the player who stood out for endeavour and ninety-minute football was Swift.

ROWING

Head of the River Race, April 1st.

This race was rowed over the 4¼ mile course from Mortlake to Putney. The 210 crews (a record entry) were started one after the other at 10 second intervals, and the individual times for the course taken: the final order was settled according to these times.

Guy's rowed, on the whole, well—their time of 21 min. 42 sec. was 2 min. faster than their time over the 3 mile course at Southampton three weeks previously, and nearly 2 min. faster than their time in last year's Head.

Owing to the different weather conditions prevailing, comparisons with the previous effort would be invidious, but on consulting the records it is plain that Guy's beat 14 more crews, and, other things being equal, their time was about 1 min. faster than it would have been last year. May this improvement continue.

To one determined to glean all possible satisfaction from the result it could also be pointed out that the University College crew that beat Guy's at Southampton were in turn beaten on the Tideway by 3 places, a matter of 5 sec.

Crew : C. C. Bull (bow), R. C. C. Thompson, J. Standring, I. H. Maine, M. W. Potts, E. P. W. Tatford (Capt.), R. D. France, J. McKenna (str.), D. M. Middleditch (cox).

INTER-HOSPITALS WOMEN'S HOCKEY

The final of the Inter-Hospital Cup matches was played at H.O.P. on March 8th, when Guy's lost to the Royal Free Hospital 6—7.

This match marked the end of Guy's women's first season of hockey. For the establishment and preservation of the team congratulations must be offered to Miss P. Bellam who has so ably captained the team, and to Miss S. Mullally who has worked untiringly as secretary. We wish them well for next season and hope to see another Cup bearing Guy's name.

BOXING CLUB

On Wednesday, 22nd March, Guy's won the Inter-Hospitals Championship at Seymour Hall with a total of 27 points, against 19 points by St. Mary's Hospital and 9 points by the London Hospital. The boxing itself was typical of Inter-Hospital functions and what it lacked in class it made up for in fire and determination. We were disappointed in the way the Guy's boxers gave up their ability to box and allowed themselves to be drawn into a "fight" by their opponents. Even in this they showed that they were the masters.

One bout was typical of the ferocity displayed by the boxers. Our man, although having a severe injury to his nose managed to do so much damage as to make his opponent incapable of carrying on to the final.

The keeness of the team to keep the Cup at the Hospital was shown in many instances. One boxer who had "retired" from the ring because of family objection, decided to help us if needed, and take the consequences when they came. Another came straight from the examination hall to win his division title. This type of spirit can be noted by other Clubs who seem to be degenerating into "also rans" as far as hospital sport is concerned.

We must appeal to the "academic brains" to take a rest now and then so that they might help their brawnier comrades to raise the name of Guy's up to the top of the sporting ladder where it was not so very long ago

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the post of **Resident Anæsthetist** (B.2.); duties to commence on May 8th, 1950. Applicants must have held twelve months' House appointments. Salary at the rate of £450 per annum, less £100 for board and lodging. The post will be tenable for six months in the first instance Applications should be lodged with the Superintendent on or before April 28th.

Applications are invited for the appointment of **Assistant Physician to Guy's Hospital.** The appointment will be a part-time one with attendance on not less than five sessions a week. The appointment is of consultant status, and applicants are required to hold higher qualifications. Applications, together with the names of three referees, should be submitted to reach the Superintendent, Guy's Hospital, S.E.1., not later than 17th May, 1950, from whom copies of the Standing Orders for the appointments are obtainable.

Applications are invited for the appointment of **Junior Assistant to the Director in the Department of Medicine,** salary £900 per annum, plus superannuation and family allowance. The appointment will date from as soon as possible until 30th September, 1950, in the first instance. Forms of application obtainable from the Medical School Office, and should be lodged with the Dean not later than 26th April, 1950.

Applications are invited for the following posts commencing October 1st, 1950:—

Dental Officer to Salomon's Centre, (1) 1 session per week.

Dental Anæsthetist to Salomon's Centre, (1) 1 session per week.

Orthodontic Assistants (Grading Registrar, 1st year.), (3) 3 sessions per week.

Forms of application are obtainable from the Superintendent, to whom applications should be sent not later than Friday, May 12th, 1950.

Applications are invited from General Dental Practitioners for the post of **Dental Officer to the Nursing Staff** at Guy's Hospital. Attendance is required on six sessions a week and duties will commence on June 19th, 1950. Salary at the rate of £150 per annum per notional half-day. The appointment will be subject to the terms and conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Applications, together with copies of testimonials, should be lodged with the Superintendent, Guy's Hospital, London Bridge, S.E.1., on or before May 31st, 1950.

Applications are invited for the following posts commencing 1st October, 1950:—

Dental Mechanics and Prosthetics
2 Registrars for 6 sessions each per week
†2 Registrars for 2 sessions each per week
†2 Registrars for 3 sessions each per week

Dental Surgery
1 full-time Assistant to the Director of the Conservation Room
†3 Registrars for 6 sessions each per week
†Registrars for 2 sessions each per week
Registrars for 3 sessions each per week
Administrative Dental Officer, 6 sessions per week

Dental Diseases of Children
†2 Registrars for 3 sessions each per week

Preventive Dentistry
2 Registrars for 6 sessions each per week

Extractions and Minor Oral Surgery
2 Registrars for 6 sessions each per week

Dental Bacteriology
1 Assistant Clinical Pathologist (Dental) for 3 sessions per week

Special Anatomy and Histology
1 half-time Demonstrator

Assistant to the Visiting Dental Surgeons
1 full-time Registrar

Forms of Application are obtainable from the Dean, Guy's Hospital Medical School, to whom applications should be sent not later than Friday, 12th May, 1950.
(†*One of these appointments may be graded as S.H.D.O.*)

APPOINTMENT

UNIVERSITY OF CAMBRIDGE

Professor J. M. Robson has been appointed as an Examiner for the Examination of Pharmacology to be held in the Lent Term, 1950.

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

First Examination

March, 1950

Anatomy and Physiology

F. W. Antscherl
J. H. Aust
M. D. Awty
D. J. Baynon
G. P. Beresford
A. W. G. Cartwright
J. M. Cautley
H. Chatfield
J. C. Cranfield
R. S. Crisp
J. G. Davies
H. A. Hill
N. J. S. Hills
W. J. Howells
D. K. Hutchinson
S. C. Jack
E. A. King-Turner
E. G. Lewis
S. A. Lewis
D. Lindsey
T. Lloyd
T. F. Lougher
D. M. Middleditch
D. U. E. Miller
H. D. O. Osmond-Smith
G. Pearson
J. F. Pike
F. L. Richards
A. R. Sauvarin
W. Sims
A. B. Grantley-Smith
F. Sonfield
A. E. F. Stearn
G. A. Thomas
M. F. Waboso
J. P. Warren
P. G. Willis
J. F. Wylie

Special Anatomy and Physiology

J. H. Aust
M. D. Awty
D. J. Baynon
E. F. Bosson
A. W. G. Cartwright
H. Chatfield
J. C. Cranfield
R. S. Crisp
D. Lindsey
T. F. Lougher
D. M. Middleditch
D. U. E. Miller
H. D. O. Osmond-Smith
C. B. H. Owen
R. Park
G. Pearson
J. F. Pike
A. R. Sauvarin
W. Sims
E. T. P. Thompson
M. F. Waboso
J. P. Warren
P. G. Willis
J. F. Wylie

UNIVERSITY OF LONDON

Academic Post-graduate Diploma in Medical Radiology (Diagnosis)

Part 1

K. E. Jefferson
G. F. Swann
M. W. P. Ward

STUDENTS' HEALTH SERVICE

MASS MINIATURE X-RAY

The Ministry of Health mass miniature radiographic unit will be at Guy's on May 1st, 1950, and subsequent days for the routine examination of students in the Medical and Dental Schools.

Before this date, notices will be posted in the Medical School, Dental School, Colonnade and College giving the times of appointments. Owing to the large numbers of students concerned, it is regretted that the times of individual appointments cannot be changed and it is hoped that all students will make every endeavour to attend promptly at the time asked so that examination may proceed rapidly and efficiently.

Should a student find that his name does not appear on the lists, he should communicate at once with the Secretary to the Student's Health Service (Telephone: HOP. 3500, Ext. 15).

GUY'S HOSPITAL REPORTS

1949. Vol. 98.

Contents

PARTS 1 and 2.

Sir William Hale-White. By Maurice Campbell. pp. 1-17.
Congenital Pulmonary Stenosis with Closed Ventricular Septum. By K. D. Allanby and Maurice Campbell. pp. 18-53.
Emphysema of the Mediastinum and Spontaneous Pneumothorax following Incisions in the Lower Part of the Neck. By Philip Reading. pp. 54-68.
James Blundell and Blood Transfusion in Man. By A. J. Drew. pp. 69-87.
Argyria: Report of a Case. By W. D. Brinton. pp. 88-94.
Primary Generalized Amyloidosis in a Young Adult. By G. P. Baker, S. De Navasquez and K. S. Maclean. pp. 95-109.
An Unusual Congenital Heart Lesion. By M. J. Greenberg. pp. 110-112.
Ulcerative Colitis: Treatment by Psychotherapy. By J. L. F. Maine and Desmond O'Neill. pp. 113-117.
Palliation of Oesophageal Obstruction. By R. E. Horton. pp. 118-120.
Edward Jenner. By F. N. Doubleday. pp. 121-125.

PARTS 3 and 4.

Gilbert William de Pulton Nicholson. By S. De Navasquez, pp. 127-131.
The Cough Syndrome. By Charles Baker. pp. 132-167.
A Case of Paget's Disease of Bone. By D. F. N. Harrison. pp. 168-174.
Finger Infections. By K. F. Anderson. pp. 175-184.
The Interpretation of Gruel Fractional Test Meals. By J. N. Hunt. pp. 185-189.
A Note on Dosage in Children. By Philip Rainsford Evans. pp. 190-201.
The Value of Clinical Laboratory Tests—I. By J. B. Foote and W. H. H. Merivale. pp. 202-208.
A Study of the Total Error in Two Commonly Used Biochemical Estimations. By Agnes Shore and L. C. Thompson. pp. 209-221.
Aneurysm of the Left Ventricle. By A. G. C. Cox. pp. 222-232.
Renal Glycosuria in a Family. By J. C. Houston and W. H. H. Merivale. pp 233-240.

FOUNDER'S DAY SERVICE

Founder's Day (May 6th) occurs on a Saturday this year. The Governors have therefore decided that it should be commemorated on **Thursday, May 4th.** Accordingly a Service will be held in the Hospital Chapel at 1.15 p.m. on that day.

The address will be given by the Rt. Rev. The Bishop of Colchester.

It is hoped that as many people as possible will attend on this occasion.

PAPERS BY GUY'S MEN

Durrans, S. F. Aetiology and Treatment of Complications during Anæsthesia. *Med. Pr.*, 1950, **223,** 312.

Martin, J. K. Local Paralysis in Children after Injections. *Arch. Dis. Childh.*, 1950, **25,** 1.

Ogilvie, Sir Heneage. The Granny Racket. *Brit. Med. J.*, 1950, i, 683.

Salvi, A. E. K. Para-Amino-Salicylic Acid as an Aerosol in the Treatment of Respiratory Tuberculosis. *Tubercle*, 1949, **30,** 223.

Stafford-Clark, D. The Psychiatric Challenge in General Practice. *Pract.*, 1950, **164,** 335.

Thompson, L. C. and another. Retinal Oxygen Supply and Macular Pigmentation. *Nature*, 1950, **165,** 524.

Whitwell, G. P. B. and another. Boils: An Epidemiological Survey. *Brit. J. Derm.* 1950, **62,** 109.

Macmanus, Desmond, Some Reflections on General Medical Practice in the Past Thirty-Five Years. *Med. Pr.* 1950, **223,** 77.

CHANGES OF ADDRESS

H. A. Buck, M.R.C.S., L.R.C.P., 45 Berry Hill Road, Mansfield Notts. Tel. 2893.

R. Glanvill, M.R.C.S., Maltmans Hill House, Smarden, Kent. Tel: Smarden 291.

N. A. St. C. Marley, L.M.S.S.A., Montego Bay, Jamaica.

R. E. Rewell M.D., Inverdee, Delavor Road, Heswell, Wirral, Cheshire.

Douglas Saunders, M.B., B.S., 4 Copt Hall, Bunns Lane, Mill Hill, N.W.

Miss F. Julia Smith, 42 Elderton Road, Westcliff-on-Sea, Essex.

H. W. Trusted M.B., B.Ch., Slepe House, St. Ives, Huntingdonshire. (April 15th.)

MARRIAGES

BUCK—EDWARDS.—On March 25th, 1950, Hubert Anthony Buck, M.R.C.S., L.R.C.P., D.A., to Marguerite Jean Edwards, S.R.N., at Long Eaton, Derbyshire.

SAUNDERS—JAMES.—On March 18th, 1950, Douglas Saunders, M.B., B.S., to Nancy James, M.B., B.S.

BIRTHS

BARBER.—On March 28th, 1950, at Nuffield House, Guy's Hospital, to Diana (nee Lee-Barber) wife of B. A. Barber—a daughter (Judith Ann) a sister for Richard.

WHEATLEY.—On April 10th, 1950, at Queen Charlotte's Hospital, to Alex (nee Wales) wife of Dr. David Wheatley—a daughter, Carolyn Alexa, a sister for Trevor.

DEATHS

POOLE.—On March 10th, 1950, Thomas Brice Poole, M.D., M.B., B.S., of Furze Croft, Hove, Sussex. Aged 80 years.

STARLING.—On April 10th, 1950, Hubert John Starling M.D., M.B., D.P.H., of 45 All Saints Green, Norwich.

EDS. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1612 *6th May, 1950* *Ninepence*

PASSIM

THE provision of an adequate blood transfusion service is an essential part of any modern hospital organisation. Of recent years, probably no other single device in medical and surgical practice has afforded more benefit than the progress made with intravenous therapy. But, for the administration of blood to the patient, more is demanded than the mere "hanging up a bottle of blood and allowing its contents to gravitate into a vein."

Primarily, an adequate supply is required. Expressed in such terms this sounds like a technical process akin to that manufacture. In fact, it entails the co-operation and self-sacrifice of a large number of conscientious donors. Their enlistment and encouragement is hardly the charge of any single hospital. On the other hand, their deterrence and disappointment may easily become so. When, therefore, donors present themselves, it goes almost without saying that they should be treated with courtesy, expedition and gratitude, and that they should be subjected to the minimum of discomfort or, even, of bodily injury.

The blood, once taken, should be properly stored, reliably cross-matched and promptly used. Above all, wastage should be avoided.

Here at Guy's the arrangements which obtain are most likely to be as good as those at the majority of other hospitals. The question is, could they be improved upon? Briefly, for those so unacquainted, the present system is somewhat as follows. Individual house-men indent upon the B.R.C. Transfusion Office for their separate requirements. Appointments are then made with the wards concerned for the donors to be received and bled. The house-officer himself takes the blood, labels it, sees to its storage and is personally entrusted with the cross-matching. This he is expected to do in the one laboratory situated on the third floor of the medical block. The ultimate disposal of the blood is again at his behest. He may use it for his own needs, he may transfer it to a colleague or, in the last resort, he may hand it over to the "bank." In the Pathology Department a small reserve is always available for emergency use.

On reflection is it right that a series of people should be approaching the B.R.C. in the course of a single day? Are the wards, with their existing commitments, the best places for entertaining donors? Can the provisions for cross-matching be improved upon? Above all, does wastage occur?

Considerable discussion is, we know, proceeding on these very points. That is why this opportunity is taken to offer a few suggestions. House men will certainly oppose any moves to lessen their own responsibilities. Nevertheless a strong argument can be advanced for the establishment here of a transfusion unit. To the officer-in-charge all requisitions for blood would in the first instance be made. He would then approach the B.R.C., plan the reception of donors and see to the actual taking of the blood, preferably in one department expressly set aside for the purpose. The Front Surgery is not a suitable place. Such a proposal, already rumoured, would be about as reasonable as expecting a bridal couple to be respectably carried from the church to the reception by a London Transport conveyance in the hurly-burly of a rush-hour! Further, cross-matching, except in cases of extreme urgency, would be conducted only by the experienced staff of the special unit, with much saving of time and no loss of accuracy. Finally, blood collected but not required for its intended recipient would at once be redirected to meet other needs.

Some such arrangement, we submit, is most desirable.

The Scope and Limitations of Electroencephalography in Clinical Medicine

By M. J. PARSONAGE, M.B., M.R.C.P.

(*Concluded*)

EXPANDING INTRACRANIAL LESIONS.

Value of E.E.G.

The value of the E.E.G. in the diagnosis and localisation of expanding intracranial lesions has been a subject of much dispute. Because the method does not provide a ready answer in all cases, and may occasionally provide information that is misleading, the over-sceptical had tended to reject it completely, forgetting that after all, these are faults of almost any form of ancillary investigation. On the other hand, it cannot be denied that extravagant claims for its value and infallibility have been made from time to time by the over-enthusiastic, so that it seems hard to know where the truth lies.

It is important to realise from the outset that very often the E.E.G. findings may give only indirect information as to the localisation of the lesion, and in general cannot yet be regarded quite so reliable a source of information in this respect as the methods of air encephalography and arteriography; nevertheless, it has an advantage over the two latter from the purely technical point of view in that it is entirely free of discomfort or danger to the patient. The most accurate and reliable localisation is obtained when the lesions are supratentorial in situation, while the greatest difficulty is encountered with those which are deeply situated in the brainstem or posterior fossa, irrespective of their nature.

The E.E.G. changes.

Typically the E.E.G. changes are characterised by the appearance of local slow activity (fig. 6). The most conspicuous of this usually comes within

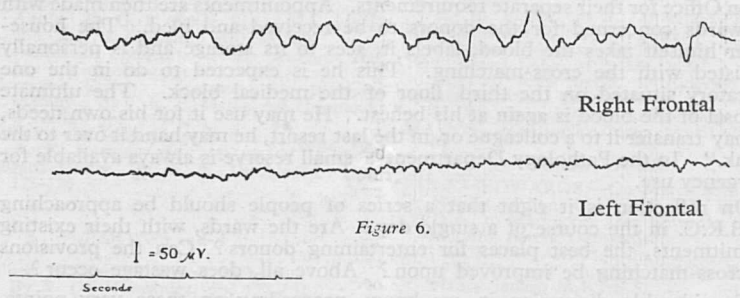


Figure 6.

the delta range of frequency (1-3 c/sec, or less) and is the common indication of disturbed cortical tissue function. Although less conspicuous, focal rhythms of theta frequency (4-7 c/sec) are frequently encountered and perhaps comprise the most commonly occurring single abnormality in all types of cerebral neoplasm; moreover, their appearance cannot always be regarded as a sign of involvement of deep structures, as originally maintained by Walter and Dovey (1944), since they are found almost as commonly in meningeal tumours as in subcortical gliomas. With direct recordings the actual tissue of brain tumours is found to be electrically inert, but such areas of silence are rarely found in clinical practice using scalp electrodes, and in point of fact the slow activity will be more usually found at the edge of the lesion where brain tissue is being actively destroyed or compressed, or even at a distance due to interference with the local circulation. Focal spikes or sharp waves are also often seen, and are not necessarily associated with a clinical history of fits, but on some occasions the E.E.G. changes may be relatively slight and consist of only a suppression of the normal rhythms over a given area,

or simply of an increased voltage and some irregularity of the alpha rhythm. In essence, the E.E.G. changes depend very much upon the severity and extent of the cerebral tissue dysfunction, and as might be expected the most dramatic changes are seen in cases of rapidly growing glioma and intracerebral abscess. In the latter waves of the slowest frequency and highest amplitude appear with great regularity, and on rare occasions the E.E.G. has provided the only antemortem evidence of such a lesion ; their absence therefore should always cast considerable doubt on such a diagnosis. Sometimes the E.E.G. may provide unexpected information as to the size and extent of the lesion ; thus if, for example, a left frontal neoplasm has been diagnosed on other grounds and the E.E.G. shows a severe dysrhythmia in *both* frontal regions, this can be taken as strong evidence that the tumour has involved the corpus callosum and thus become bilateral, Lastly, it should be mentioned that when the intracranial pressure becomes raised the local abnormality tends to be masked, since slow activity will now be seen in all areas, though usually maximal in the frontal regions. This effect can to some extent be nullified by the intravenous administration of a hypertonic sucrose or saline solution immediately before the E.E.G. recording is made.

The findings of various authorities.

Many observers have published the results of their investigations into the value of the E.E.G. in the localisation and evaluation of expanding intracranial lesions, but space does not permit more than the briefest reference to these. Cobb in 1944 published an account of his E.E.G. studies on 155 verified intracranial space-occupying lesions, and came to the conclusion that the usefulness of the E.E.G. in tumour localisation was beyond doubt, and that it had an occasional value as a pointer in tumour differentiation. The E.E.G. was found to be abnormal in nearly 90 per cent of 88 cases of tumour involving one or other cerebral hemisphere in the series, and of these the lesion was correctly localised in nearly 50 per cent, correctly lateralised in 8 per cent and incorrectly localised in 9 per cent. The observed abnormalities included a tendency to slowing of the alpha rhythm, slow frequencies of variable occurrence, silent areas only rarely, and in all except one of nine cases of tumour in and around the pituitary fossa bisynchronous theta rhythms were a highly characteristic feature. This latter finding has since been confirmed by other observers. Jasper (1949) considers that with experienced personnel using the most recently developed localisation methods and principles of interpretation, the E.E.G. provides a reliable aid to diagnosis and localisation of expanding intracranial lesions in 80 to 85 per cent of cases, and that with further improvement in methods, particularly with regard to the study of deeply situated lesions, this figure may be increased. In a very recent survey of the E.E.G. findings in 100 cases of verified supratentorial tumour, Kershman, Conde and Gibson (1949) found that 77 per cent were correctly localised ; 20 per cent were poorly localised ; while 3 per cent were localised to the wrong side, the localisation in this last group being based on the demonstration of a silent area in each instance, a finding which they regard as particularly misleading. They also observed that the occurrence of various combinations of different types of abnormality was helpful in differentiating the various types of tumour. So for the present, work continues on this aspect of the E.E.G., and we can expect some increase of precision in the future with reasonable confidence.

Cerebral Trauma.

E.E.G. changes.

An E.E.G. taken shortly after a head injury which has resulted in concussion will usually show disorganisation and suppression of the normal rhythms with interspersed slow delta waves. The appearance of slow delta waves under these circumstances is again the common sign of depressed cerebral function, and the greater the disturbance of the latter the more continuous these waves become. If the cerebral injury has been limited to concussion the E.E.G. may return to normal in any time from a few minutes to several days, depending upon the severity of the blow. If, however, the E.E.G. abnormality persists for more than ten days, it is likely that the injury has

resulted in more than simple concussion. As the general abnormality subsides a local abnormality often becomes more evident at the site of injury; at the same time contrecoup effects may become clearly recognizable, and unexpected areas of damage may be unmasked. Foci of abnormal waves have also been recorded from the neighbourhood of scalp wounds which were thought to be trivial, but which had undoubtedly been associated with slight though unsuspected brain damage. In cases of penetrating head injury the abnormal activity may be confined to the area bordering upon the wound ,but when concussion has occurred as well there is likely to be a generalised disturbance of the electrical rhythms of the brain.

In addition to slow waves, fast activity may be seen during the acute stages of a head injury, indicating irritative changes in cortical activity, and, when marked, it may be associated with convulsive seizures. This fast activity may for example be seen in cases of cerebral contusion, but does not necessarily imply the development of traumatic epilepsy, since it may disappear in a few months and the patient recover without subsequently developing clinical seizures. On the other hand, when a focus of delta waves with spontaneous fast activity becomes organized two to three months after a local cortical contusion or laceration, the development of traumatic epilepsy becomes probable, though not certain.

Assessment of results in chronic injuries.

In the case of chronic head injuries the E.E.G. changes may be more difficult to assess. In about 50 per cent of cases with persisting symptoms, abnormalities are also found in the E.E.G. (Williams, 1941), and when the abnormal waves have a focal origin they have usually been caused by the injury; but when the abnormality is a generalised one it may have been present before the injury (Heppenstall and Hill, 1943), and thus have quite a different origin. Sometimes the E.E.G. is quite normal in cases where there are persistent severe focal neurological signs, such as hemiplegia, In such cases the implication is that all damaged and dead tissue has been removed, while the remaining cerebral tissue continues to function normally. This is borne out by the fact that persisting delta waves are rarely seen following good debridement of damaged cerebral tissue.

The E.E.G. is not usually regarded as a reliable guide in the detection of a subdural hæmatoma. Typically the development of this complication leads to the appearance of relative electrical silence over the centre of the affected area. In over 50 per cent of cases however no such area can be demonstrated, even though the hæmatoma is later found to be present at operation. At the same time it also has to be remembered that a quiet area in the E.E.G. may be due to local contusion without hæmatoma formation, or to local ischæmia. Despite all these facts however, the E.E.G. examination may lead to the suspicion of a subdural hæmatoma when it had perhaps been overlooked or not considered likely on clinical grounds.

Traumatic epilepsy.

Reference has already been made to the question of traumatic epilepsy, and this needs some further amplification. In a series of 86 such cases Jasper and Penfield (1943) found that 90 per cent exhibited a local area in one hemisphere in which random spikes or sharp waves were most prominent, there being a single unilateral focus in the great majority of instances. In 9 cases the E.E.G. patterns were those generally regarded as typical of the cryptogenic epilepsies, but in all these the injuries had occured before the age of 14 years, 7 having occurred before the age of 7 years, so that in these special instances an hereditary epileptic background seemed likely. Williams (1944) studied the problem from the point of view of prediction of the onset of seizures from the E.E.G. changes. He came to the conclusion that the presence of episodic outbursts of abnormal waves increased some four times the likelihood of traumatic epilepsy supervening, and that if larval epileptic outbursts were present its development became almost a certainty.

Cerebrovascular Lesions.

The E.E.G. changes are surprisingly slight in most vascular lesions of the brain, and even when present they are only seen during the acute stages. Thus the condition of hemiplegia consequent upon a cerebral vascular catastrophe is as a rule associated with little or no residual alteration in the E.E.G. Massive intracerebral hæmorrhage however is usually localised by the appearance of local delta waves in the same way as for an expanding lesion, and they can only be distinguished from the latter by the changes observed in serial recordings. Thus the E.E.G. changes associated with the vascular lesion generally subside rapidly while those due to a growing tumour show progressive increase.

Sometimes asymmetry of electrical rhythms in the hemispheres is seen in cerebrovascular lesions, and evidence is accumulating to show that the asymmetry may become accentuated during sleep, or even made to appear for the first time under conditions of artificially induced sleep, when in fact they were not evident during the waking state (Cress and Gibbs, 1948). The presence of lower amplititude or slower frequency is said always to occur in the affected hemisphere, and reduction of the 14 c/s activity normally seen during sleep has also been regarded as a reliable lateralising sign.

The inflammatory and Degenerative Diseases of the Central Nervous System.

In a study of 144 cases of organic disease of the central nervous system Hill (1948) found that the E.E.G. tended to be more abnormal in the diseases which were of inflammatory origin than in those generally considered to be degenerative in nature. He observed the abnormality to be particularly marked in general paresis, the presenile cortical atrophies and Huntington's chorea, and that the greatest correlation between the clinical state and the E. E.G.findings occured when there was gross mental confusion, intellectual deterioration, behaviour disorder or seizures.

E.E.G. changes.

In general it may be stated that when the cells of large areas of the cerebral cortex are involved in toxic, inflammatory of degenerative processes local delta waves make their appearance. The ultimate changes in the E.E.G. will depend upon the final state of the involved cells, and if for example epileptic activity supervenes in the cortex near an area of destruction, then a persistant E.E.G. abnormality of the epileptic type may remain. Involvement of subcortical tissues usually entails interruption of thalamocortical connections and this will result in a diminution of rhythmical activity in the E.E.G. over such an area. The extent of the E.E.G. changes in any of these conditions is also closely related to the tempo of the pathological process. The changes however cannot be regarded of much value per se from the point of view of differential diagnosis, because the appearance of delta activity in these cases is only an index of disturbed cortical function, not an indicator of the underlying ætiological processes. Thus E.E.G. abnormalities are frequently observed during the acute phases of the presenile cortical atrophies, but later there is a tendency for these abnormalities to disappear. It is to be noted though, that they do not differ essentially from those seen in acute cases of general paresis. On the other hand, the abnormalities seen in the more chronic and diffuse inflammatory or degenerative diseases of the cortex are generally much less dramatic, and may consist of no more than an abnormally slow alpha rhythm showing a poor blocking response to visual attention. The findings in Huntington's chorea are of special interest, however, and consist of a progressive diminution in the rhythmical electrical activity of the cortex, with disappearance of the alpha rhythm.

Application to Clinical Psychiatry.

Mention has already been made of the fact that the E.E.G. has helped to show that many disorders of thought and behaviour, especially those having a repetitive, periodic incidence, are either closely related to epilepsy or are actually epileptic in nature, a major contribution to this aspect of clinical psychiatry.

It has also made a contribution in certain ætiological problems of the constitutional psychoses, and although no specific E.E.G. disorder is associated either with the manic depressive or schizophrenic reaction types, the method has been profitably applied to the longstanding problem of the relationship of schizophrenia to epilepsy. Another view of the relationship between the E.E.G. and psychiatry is provided by the clinical and E.E.G. changes which accompany alterations in the contents of the cerebral blood. Although the findings concerning the E.E.G. characters in relation to the complex phenomena of human behaviour and personality types have been disappointing, it seems probable that the technique will form a bridge upon which the sciences of neuropathology, biochemistry, endocrinology and psychology can meet (Hill, 1945).

A large volume of data has been amassed concerning the percentages of the various clinical types of psychiatric disorder in which E.E.G. abnormalities are seen, but there is still much to be done as regards assessing their significance and general application. Thus it is more than ten years since Jasper, Solomon and Bradley (1938) first demonstrated the presence of abnormal cortical rhythms in problem children, and since that time many observers have confirmed these findings and shown that between 60 and 70 per cent or more of children exhibiting delinquency and behaviour disorders have abnormal E.E.G.'s, some of which are frankly epileptic in type, In the case of adults, Hill and Watterson (1942) found that 48 per cent of psychopathic personalities had abnormal E.E.G.'s, such abnormalities being twice as common in the aggressive as in the inadequate types. When epilepsy was associated with a psychopathic personality these authors found the E.E.G. abnormality rate to be as high as 82 per cent and suggested that the common basis of the abnormal E.E.G. and the aggressive psychopathy may be a persistent cortical immaturity.

It is clear that the E.E.G. may provide objective confirmatory evidence of disturbed cerebral function under a variety of circumstances, and this evidence has on occasion been used and accepted in courts of law. Thus Hill and Sargant (1943) reported the case of a young man accused of the murder of his mother in which it was shown that whenever the level of his blood sugar fell below about 100 mgm. per cent his E.E.G. became abnormal ; furthermore the abnormality became increased when he overbreathed during emotional excitement, with the result that at a certain stage there was impairment of his judgement and some clouding of consciousness. The history of the case indicated that it was highly probable that this state of affairs existed when the crime was committed, and the jury subsequently returned a verdict of guilty but insane. More recently, Stafford-Clark and Taylor (1949) made a clinical and E.E.G. study of 64 prisoners charged with murder and concluded that the findings were suggestive that a significant correlation exists between apparently motiveless crime and E.E.G. abnormality. Although the observed abnormality was not specific, it has been found in over 70 per cent of prisoners whose crimes appeared motiveless but who were otherwise clinically sane and normal. These authors therefore finally conclude that the potential value of the E.E.G. in providing the basis for a more enlightened attitude towards at least one group of criminals should not be underrated.

Summing up.

The data concerned in the application of the E.E.G. to clinical psychiatry are usually much more complex than they are in neurology. Thus the evidence for an epileptic focus or an intracranial space-occupying lesion may be direct and unmistakeable in the E.E.G., whereas in psychiatry the findings can often only be couched in much less definite terms, such as maturity, stability to stress and the like, so that much caution is required in relating them to the clinical state.

Final Conclusions—The Future of Electroencephalography.

General.

This review cannot claim to be exhaustive, since the emphasis has throughout been laid upon the clinical applications of the E.E.G. So far as possible the information it contains has been culled from the latest available sources,

though it is fully realised that much of what is written to-day may well be out of date to-morrow. The physiologist may rightly complain that no mention has been made of the research potentialities of this technique, but this is becoming almost a subject of its own. It has already contributed much to our views on central nervous system function, and is almost entirely beyond the scope of this present discourse. Clearly this method of study of the electrical activity of the brain is only one aspect of the problem of central nervous system function. It is a convenient method, but our fullest understanding is likely to come not from this alone, but as a result of the collaboration and pooling of observations of many workers studying the problem from as many different angles as possible. However, to return to the main theme of this review, perhaps the outstanding features of the clinical application of E.E.G. may be recapitulated in general terms as follows :—

Epilepsy.

The fundamental feature of epilepsy is an apparently spontaneous abnormal discharge of a group of neurones in the brain. If the abnormal discharge occurs in a localised area of the cortex, and particularly if it does not spread to other areas, then the clinical manifestation will be a distorted version of the normal function of that part of the brain, jerking of a limb if in the motor cortex, a perverted sensation if in the sensory cortex, flashes of light if in the visual cortex, and so on. In these circumstances the cardinal feature in the E.E.G. is the spike potential, having identically the same form in no matter what part of the cortex it may appear, and it so happens that in the great majority of these cases there is a demonstrable causative lesion, and we refer to them as the symptomatic epilepsies. On the other hand, when the discharge arises in the thalamohypothalamic regions the outstanding clinical feature is an alteration in consciousness, the E.E.G. exhibits a generalised bilaterally synchronous epileptic discharge in the cerebral hemispheres, and the majority of these cases have no demonstrable causative lesion, so that we classify them under the heading of idiopathic, cryptogenic or essential epilepsy (because we do not fully understand their cause). Even though the distinction between these two groups of epilepsy is not an absolute one, it remains a convenient one on clinical grounds at least, and the E.E.G. is often helpful in making this distinction. Wherever the epileptic discharge arises it may under certain circumstances become generalised, and the clinical manifestation of this is the major convulsive seizure with complete loss of consciousness. Many epileptic subjects exhibit seizures of this kind, and the immediate task of the clinician is to determine if possible where the discharge begins, and here the E.E.G. may provide invaluable aid, so that it may not be an overstatement to say that there are few cases of epilepsy which do not merit such an examination.

Expanding intercranial lesions.

In expanding intercranial lesions the cardinal feature in the E.E.G. is the appearance of local delta waves. These are the sign of disturbed cortical function, and in themselves have no specific implications with regard to ætiology. Often the E.E.G. findings provide only indirect information as to localisation, and for their fullest interpretation they must be carefully correlated with the clinical findings. Under these circumstances it may be found that the lesion is much more extensive than was previously realised, and sometimes the observed E.E.G. changes may lead to the suspicion of an expanding lesion when it seemed unlikely or was even unsuspected on other grounds.

Cerebral trauma.

In cases of cerebral injury the E.E.G. is often valuable in localising and assessing the severity of the trauma. When concussion has occured generalised delta activity is the rule, and as the concussive effect lessens areas of focal and contrecoup damage may become apparent. In the later stages it may be a guide to prognosis and give information as to the chances of the development of traumatic epilepsy as a late sequel.

Cerebrovascular lesions.

In cerebrovascular lesions the E.E.G. changes are usually evanescent, and often surprisingly slight. Nevertheless, serial recording may be valuable in distinguishing them from neoplastic processes, since in the latter the E.E.G.

changes become progressively more marked, whereas in the former there is a remarkable restitution of the normal rhythms. Sometimes only minor degrees of asymmetry of the cortical rhythms are present after a vascular lesion has occurred in the brain, and these can sometimes be demonstrated more easily during normal or artificially induced sleep.

Inflammatory and degenerative diseases.

The E.E.G. may on occasion be useful in helping to differentiate between inflammatory and degenerative diseases of the brain, the changes being usually more marked in the former than in the latter. This applies more particularly to the acute phases of the disease process, since E.E.G. changes are usually not much in evidence in the more chronic stages.

Psychiatry.

In psychiatry one is likely to be confronted with many factors and variables, interacting in a complex manner. Great caution is necessary in the application of E.E.G. to this branch of medicine, and perhaps its greatest value lies in the detection of those disorders of thought and behaviour that have an epileptic basis. It has been applied with success to medicolegal problems involving assessment of responsibility in crime.

Final conclusion.

In conclusion, it may be claimed with justification that E.E.G. has reached such a stage of development that it can often be applied with profit, let alone interest, to almost any clinical problem involving disturbance of brain function and in this respect both its value and its limitations are much on a par with those of other ancillary methods of clinical investigation.

ACKNOWLEDGMENTS.

I am much indebted to Dr. Denis Hill for reading the proofs and suggesting several much needed corrections, to Miss J. Fowler for help in selecting and preparing the illustrations, and to Miss M. Squire for typing the manuscript.

BIBLIOGRAPHY.

Berger, H. (1932). Ueber das Elektrenkephalogram des Menschen. IV. Arch, F. Psychiat. **97**, 6-26.
——(1933) VI. Arch, F. Psychiat. 99, 555-74.
Blake, Gerard and Kleitman. (1931). J. Neurophysiol., **2**, 48-60.
Cobb, W. A. (1944). J. Neurol., Neurosurg., and Psychiat. VII, 96.
Cohn, R. and Cruvant, B. A. (1944). Arch, Neurol, and Psychiat., **51**, 162.
Cress, C. H. and Gibbs, E. L. (1948). Dis. Nerv. Sys., IX, No. 11, 327-329.
Dynes, J. B. and Finley, K. H. (1941). Arch, Neurol, and Psychiat., **46**, 598-612.
Frank, Lawrence K. (1948). Projective Methods. Charles C. Thomas, Illinois.
Gibbs, F. A., Davis, H. and Lennox, W. G. (1935). Arch Neurol. and Psychiat., **34**, 1133-48.
Gibbs, F. A. and Gibbs, E. L. (1941). Atlas of Electroencephalography, Addison-Wesley Press Inc., Cambridge 42, Mass.
Gibbs, F. A. Gibbs, E. L., and Lennox, W. G. (1937). *Brain*, 60, 377.
Gibbs, F. A., Gibbs, E. L. and Lennox, W. G. (1943). *Arch. Neurol. Psychiat.*, Chicago, **50**, 111.
Gibbs, F. A., Lennox, W. G. and Gibbs, E. L. (1936). *Amer. J. Physiol.*, 116, 61.
Heppenstall, M. E. and Hill, D. (1943). *Lancet*, **1**, 261.
Hill, D. (1945). *J. Ment. Sc.*, **91**, 281.
Hill, D. (1948). *Proc. Roy. Soc. Med.*, Vol. XLI, 237.
Hill, D. (1949). *4th International Neurological Congress*, Paris, **1**, 27-33.
Hill, D. and Sargant, W. (1943). *Lancet*, i, 526.
Jasper, H. (1947). *Epilepsy*, Grune and Stratton, New York.
Jasper, H. H. (1949). *4th International Neurological Congress*, Paris, **1**, 25.
Jasper, H. and Penfield, W. (1943). *Amer. J. Psychiat.*, **100**, 365.
Jasper, H., Solomon, P. and Bradley, C. (1938). *Amer. J. Psychiat.*, **95**, 641.
Kershman, J., Conde, A. and Gibson, W. C. (1949). *Arch. Neurol. and Psychiat.*, **62**, 255-268.
Lennox, W. G. (1945). *Human Fertility*, 10, No. 4.
Penfield, W. and Erickson, T. C. (1941). Epilepsy and Cerebral Localisation. Springfield, Thomas.
Stafford-Clark, D. and Taylor, F. H. (1949). *J. Neurol., Neurosurg., and Psychiat.*, XII, 325-330.
Walter, W. G. (1944). *Electronic Engineering*, **16**, 9 and 236.
Walter, W. G. and Dovey, J. J. (1944). *J. Neurol., Neurosurg., and Psychiat.*, **7**, 57.
Williams, D. (1941). *J. Neurol. Psychiat.*, **4**, 131.
Williams, D. (1944). *J. Neurol., Neurosurg., and Psychiat.*, VII, 103.
Williams, D. (1945). *Brit. Med. Bull.*, **3**, 613, 18.

Ocular Tuberculosis

By O. GAYER MORGAN, F.R.C.S.

A Clinical Lecture delivered at Guy's Hospital Medical School on 7th November, 1949.

MUCH of the earlier remarks I am making in this lecture are based on a paper by Alan C. Woods in the British Journal of Ophthalmology of April, 1949, and anyone who is interested should read the paper in full.

The Tubercle bacillus can gain entrance to the body in one of four ways :—

1. Through the placenta, which is rare.
2. Through the skin and mucous membrane by contact.
3. Through the gastro intestinal tract—milk—when the infection is bovine.
4. Through inhalation of infected dust or droplets when it is usually human in type.

Usually the blood infection follows from a low grade local lesion in the abdominal or bronchial glands, but if this involves the wall of a blood vessel, a massive outpouring of bacilli produces a military metastasia.

The local lesion as shown by Koch follows one of two types depending on :

1. The virulence of the infection.
2. Whether the person has been previously infected, *i.e.* the state of allergy and immunity.

In a healthy individual the infection produces a slight local lesion with gradual lymphatic enlargement and the formation of tubercles. This leads to a general systemic involvement with caseous masses surrounded by Epitheloid cells and giant cells and outside this an area of lymphocytes.

In a previously infected person a local exudative allergic reaction occurs with œdema and erythema and a local fixation of the bacilli and their destruction if the dosage is small. If the dosage is high it may break down the local barrier and produce a miliary spread.

It is important to note that these latter reactions in allergic people can be produced experimentally by the tuberculoprotein as well as by the presence of active bacilli.

At one time it was thought that hypersensitivity and immunity were interdependent, in other words that the local allergic reaction was the prime factor in the immunity. Rich has, however, pointed out in a series of experiments that there is no relation between the hypersensitivity and the general resistance ; that an animal can be completely desensitised to the extent that not only soluble bacterial products but even live bacteria can be injected into the skin without any local reaction of any sort and yet resistance to dissemination and immunity to reinfection were totally undisturbed.

The different results of infection depend on the three variable factors :

(1) Degree of infection ; (2) allergy and (3) resistance ; and one can work out the result by Rich's Law—

$$\text{Lesion} \propto \frac{\text{Virulence} \times \text{Allergy}}{\text{Resistance}}$$

In ocular tuberculosis it has long been recognised in experimental work that the normal animal and the immune allergic animal behave quite differently to the same infection and we now see that the extreme variety in the clinical results depends on the variation in the three factors I have mentioned. This holds good for clinical tuberculosis in the human, but it is much more difficult to work out a clear picture here when none of the factors are known at the start of the disease.

Experimentally in the *normal rabbit*—a small dose of tubercle bacilli injected into the anterior chamber produced little immediate reaction.

After 2 weeks there were ciliary injection hazy cornea and tubercles on iris.

„ 4 „ vascularisation of cornea and necrosis of iris.

„ 6 „ perforation and resultant fibrosis.

With a large dose the whole clinical picture was twice as rapid.

In the *immune allergic rabbit* it was necessary, in order to produce any reaction, to give a dose 50 times the one used in the normal.

After injection of such a dose into the anterior chamber.

In 24 *hours* there was a very marked transient reaction which subsided in a few days—due to tuberculoprotein.

After two weeks a low grade iridocyclitis and keratitis developed which increased slowly with formation of tubercles and which subsided after 6–8 weeks without perforation.

If a much larger dose was given the reaction was extremely severe and rapid—necrosis, caseation and perforation occurring even more destructive than the large dose in a normal rabbit.

It is obvious from what has been said that it is possible to organise therapy in three ways :—

1. Enhancement of the resistance by general treatment and hygiene.
2. Desensitisation by tuberculin for removal of the fatal tissue allergy.
3. Direct attack on the bacilli by some form of chemotherapy or antibiotic.

No. 1 does apply to ocular tuberculosis but is of course more necessary in pulmonary and bone lesions.

Local resistance can be increased in the eye by tapping the anterior chamber (paracentesis). This provokes a flow of fresh aqueous rich in antibodies and it can be repeated if necessary.

No. 2. Experiments show quite definitely that if immune allergic rabbits are desensitised by a course of tuberculin injections the initial reaction on injection of bacilli into the anterior chamber due to tuberculoprotein is abolished and the resulting reaction is slight. Immunity is unaffected and this produces a marked resistance to reinfection. Fifty times the normal dose being required to produce a reaction.

Can one stimulate an artificial immunity to tuberculosis ? This is questionable, but there is a lot of work being done by innoculation of children with attenuated B.C.G. organisms and experience abroad has suggested that this is of great value.

It is important to realise that desensitisation has no effect on the disease from the point of view of destruction of bacilli—it only removes the factor responsible for the destructive local action.

Desenitisation in many chronic eye diseases has been proved to be very useful. Repeated doses of minute quantities—one millionth of a milligram during the quiet period can prevent relapses.

Immunity is different in this respect and has a direct influence on the protective reaction of tissues of all types.

The effect of chemotherapy and streptomycin has now been studied experimentally and in patients—chiefly those suffering from miliary spread.

The sulphones were the first chemical agents which seemed to have some effect on the tubercle bacilli—promin, promizole and diasone.

Promizole is the one usually employed and experimentally—especially in immune allergic rabbits—some deterrent action was noted. Penicillin seems to have no action of a useful nature at all.

Promizole + Streptomycin experimentally gave dramatic results in all types of ocular tuberculosis—the streptomycin having apparently a definite antibacterial action.

Para-amino-salicylic Acid (P.A.S.) + Streptomycin has proved of great value in the treatment in clinical cases—the former tending to prevent the early production of Streptomycin resistant strains of bacilli.

A word about diagnosis of a tuberculous eye lesion.

1. Clinical appearance : This is occasionally helpful.
2. Clinical evidence of T.B. elsewhere (secondary disease) : Usually not an active consition—more often healed infection of a gland.
3. Skin tests : These only show the presence of sensitivity to tuberculoprotein and as a very high percentage of people have had at sometime a T.B. lesion—this is not very valuable. The main one used is Mantoux in dilutions —001, —01, —1, old tuberculin intra-cutaneously—marked reaction to —001 is suggestive.
4. Injection of tuberculin gives a focal reaction in the eye : A dangerous method to use and not satisfactory as other proteins do the same.
5. Histological evidence : only occasionally possible.
6. Recognition of bacilli : in scrapings or by injection into guinea pig.

I will now give a very brief outline of some of the clinical types of tuberculosis of the eye and show drawings and paintings from actual cases.

Conjunctivitis—Primary—spray infection.
Secondary—endogenous
or direct spread, *i.e.* lupus.

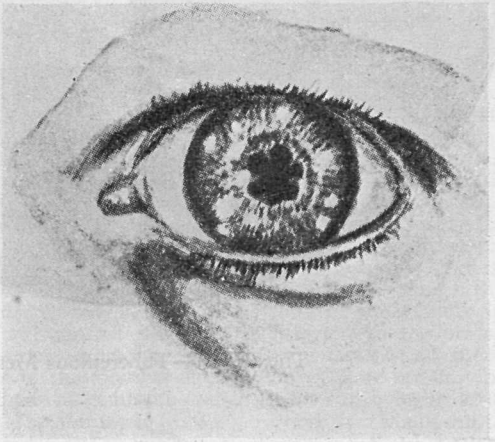
It can take many forms—

A solitary spreading ulcer—a cockscombe like excrescence and multiple granules of a nodular type being the most common. The differential diagnosis is between tubercle, syphilis and occasionally diptheritic ulceration and the actual factor is determined by scraping, biopsy or innoculation experiments.

Phlyctenular conjunctivitis is known to be an allergic response to many different antigens but the most important one is probably tuberculoprotein and Sorsby has shown that in children who suffer severely from the condition there is background of tubercle in the family—more frequent evidence of of clinical tubercle in the child, and if followed up in later life, more evidence of late development of tubercle than is the case in a series of normal children.

Keratitis and Sclero-Keratitis.

A deep keratitis—very like that of congenital specific disease—may be seen in tuberculosis and it may be confined to the cornea or involve the cornea as a result of spread from a source in the sclerotic. This is very troublesome as it relapses from time to time and the cornea becomes invaded by new vessels which impair its transparency.



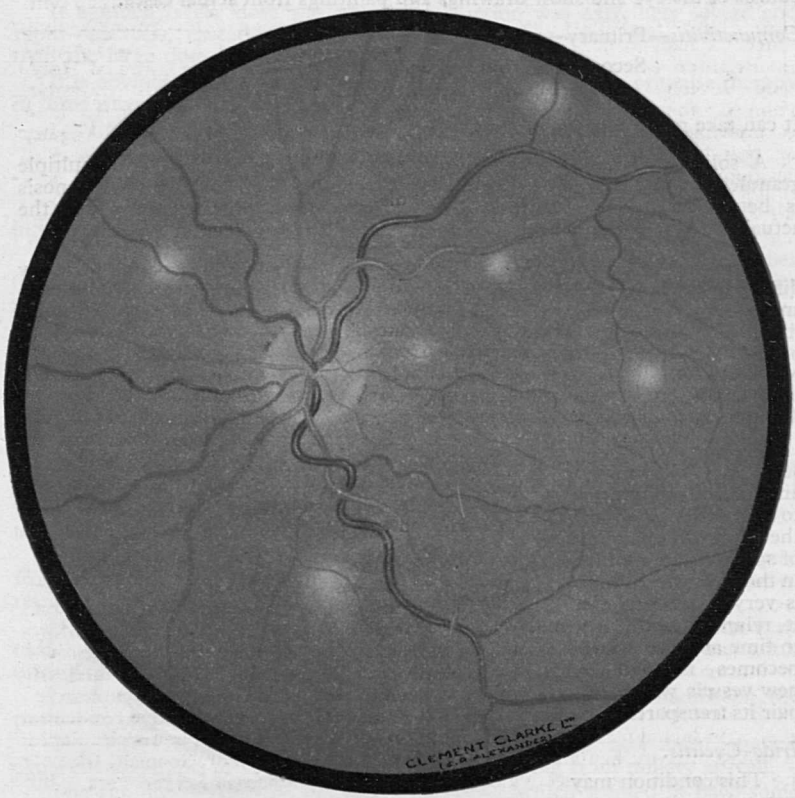
Iritis tuberculosa.

Irido-Cyclitis.

This condition may be tuberculous even though clinically it differs little from the type seen in ordinary infective conditions. Occasionally, however, there are definite nodules on the iris—these may be multiple or appear as a conglomerate mass in one position usually at the root of the iris itself.

The Retina is affected according to many observers as a periphlebitis. The damage to the walls of the small vessels often results in vitreous hæmorrhage which may be recurrent. The formation of vitreous bands may lead to retinal detachment and other complications.

The choroid is probably the most frequently affected part of the eye. Here the tuberculous focus is either a solitary one which settles down leaving a localised scar or it may affect a wider area of the fundus simulating diffuse disseminated choroiditis of specific origin. Occasionally there is a conglomerate mass which enlarges, involves the whole thickness of the glove and perforates.



The Retina—Tuberculous Meningitis.

The other type is miliary and is found in cases of tuberculous meningitis. Here one sees small yellowish spots scattered over the fundus which seem to come and go without leaving any appreciable residual scar. These were looked upon as a terminal sign until the advent of streptomycin, but now the prognosis is considerably improved.

The Third Journey

By DAVID STAFFORD-CLARK

(continued)

Leaving the train at Los Angeles, the traveller emerges while still in the station, into an elaborate forecourt surrounded by palm trees and with high walls in Spanish style enclosing a patio in the centre of which there is a fountain. Here I met a very good friend, Dr. Kenneth Nash, who had been a colleague during my first six months in Mass. General. His home was in Glendale, one of the townships which maintains a partial independence, although they coalesce with the vast sprawling and daily increasing bulk of Los Angeles itself. This is the one constant, confusing factor which confronts the visitor to Los Angeles. In my mind, as I suppose in the minds of many people who have yet to visit Los Angeles, the preconceived idea formed of the city was of a luxurious, sun-drenched community of new buildings with wide boulevards fringed by palm trees and possessing a recognizable civic centre. I had, in fact, imagined it as a modern American blend of Torquay and Brighton on the Pacific Coast; while the separate communities of Hollywood, Beverly Hills, Belair and the San Fernando Valley were, in my mind, arranged about the periphery of the main city in an orderly and recognizable fashion. In all this I was completely mistaken. Los Angeles can best be compared to a gigantic and still spreading urban area, a sort of metropolitan cancer which has surrounded, invaded, swallowed up and now spread far beyond the separate and once distinct communities such as Glendale, Burbank, Hollywood, Santa Monica, and the rest. This unflattering description is borne out by the tendency of the buildings in the Southwest, which is at present the most rapidly expanding area of growth, to run true to neoplastic tradition by becoming less and less differentiated and more and more hideous and destructive of the natural beauty of their surroundings. The population of Southern California is expanding at a rate of 25,000 a month. The dangers of this malignant proliferation in a city whose form and plan have of necessity altered so rapidly as to approach complete chaos, are the concern of many Californians, who love Los Angeles but dread what is happening to it. Yet scattered in the midst of this vast area of pulsating growth are islands of rare beauty and fascination. One of them is Santa Monica, where it was my good fortune to stay. Here between hills dotted with Spanish style houses in pink and blue and white stone, surrounded by exquisite gardens laid out among palms, flowering shrubs, and fruit trees, are wide clean streets fringed with tall trees and leading to a curved bay on the Pacific.

Hollywood, long since abandoned by most of the major film studios, lies further inland. The corner of Hollywood and Vine, once famed as the very heart of filmland, is no more inspiring in its appearance at close range than the Tottenham Court Road, which it somewhat resembles. The great shadows of the past have moved on, and in their place the neon lights, the drugstores, the innumerable motion picture theatres, and the hired searchlights ceaselessly combing the glowing sky, serve only to emphasis the artificiality of this deserted village.Beverly Hills is still an opulent and in some ways an attractive residential area; conducted tours of hopeful sightseers continue to spend hours circulating its boulevards by bus and gazing reverently at the distant Spanish, Chinese and other exotic buildings which reputedly serve as homes for the stars. But just as some of the studios have moved from Hollywood to wider space in Burbank, Culver City, or still another part of Los Angeles, so the newer, smarter set in the film colony are to be found, should you care to seek them, in Belair or at ranch homes in the San Fernando Valley. Here are curving hilly roads unmarred by billboards, leading to orange groves and quiet streams, and further out, the ancient San Fernando Mission. There are twenty-one of these Missions in California between San Diego in the south and San Francisco in the north. They were all founded by the Franciscan Fathers and nine of them by one man, Fra Junipera Serra, who began in San Diego and travelled northward. Each one of its missions is separated from its predecessor along the route by a day's journey on horseback. All are built of adobe or stone

gathered locally and reveal the simplicity and beauty of Indian workmanship under Spanish direction. Many of them have gardens and orange groves, and one, the Mission San Juan Capistrano, is famous for the return of the swallows each year and for the ruins of the oldest church in the State of California which stand, partly overgrown, in an exquisite garden.

I spent in all six days in Los Angeles as the guest of Dr. Nash. He is now on the staff of the Brentwood Veterans' Hospital, one of the largest veterans' hospitals in the United States, and every morning we would drive there from Santa Monica, whereupon he would lend me his car for the rest of the day until I could meet him again in the evening. This characteristic generosity enabled me to explore Los Angeles and surrounding countryside in a way I could never have done without a car. I made full use of my opportunities, visiting two other hospitals in Los Angeles and attending the rounds of Professor Neilson with whom I had a most instructive discussion about aphasia, as well as spending one memorable morning wandering all over the fabulous burial grounds at Forest Lawns. Evelyn Waugh has dealt with Forest Lawns once and for all in "The Loved One"; even his remarkable imagination, however, found but one addition to make to the fantastic repertoire of the original. There are no mechanical bees at Forest Lawn. Apart from that, it is exactly as he described Whispering Glades.

On the one day when Dr. Nash was free to accompany me, we drove southward along the coast to San Diego and thence on into Mexico, at Tijuana. Once we had made good our escape through the southwestern suburbs of Los Angeles, the most recent and strikingly neoplastic of all, and threaded our way through the forest of oil wells which extend to the sea's edge at Long Beach, the drive became pleasant and at times spectacular. Hills and bays succeeded one another, sometimes wild, sometimes settled with houses and gardens and grown about with palms, fruit trees, and flowering shrubs. To the right of the road never further than a quarter of a mile and often fringing it, was the Pacific Ocean.

In Tijuana it was pouring with rain. A melancholy Mexican guard at the frontier, chewing a damp cigar, waved us across the border. Almost at once the road literally broke up beneath the wheels of the car and we were floundering through potholes eight inches deep and running with water. The poverty and squalor of most of the houses in Tijuana are indescribable. The town exists by selling an extraordinary assortment of tourist goods, including French perfume at bargain prices but of questionable origin, to the visiting Americans. Tijuana on a hot day could conceivably be picturesque; in the middle of a downpour, it was human, pathetic, and disturbing.

I travelled to San Francisco on the "Morning Daylight," one of the best trains in America, and certainly a monument to the commercial ideal of service to the customer in which America excels. The route of the train runs between the Pacific and the hills which separate the desert, and later the orange groves and farms of Southern California, from the sea. The entire train is provided with a well-modulated radio communication system, over which are broadcast occasional items of information about the scenery and the history of the places through which the train passes. Some of their names will give an indication of the fascination of this journey: north of Los Angeles comes Santa Barbara. Thereafter, the train runs through Guadalupe, San Luis Obispo, San Miguel, Santa Lucia, Carmel, and Santa Cruz.

From Los Angeles to San Francisco is 400 miles, and the journey takes eight hours. San Francisco, where I arrived in the early evening, seemed to me the most beautiful and fascinating city of the United States. It is built upon a number of steep hills, and encloses a vast land-locked bay whose entrance, the Golden Gate, is spanned by one of the most famous bridges in the world. It is, in fact, the largest single span bridge ever built—but what is far more important than this is that it forms in some inexplicable and yet wholly inevitable way, an exquisite completion of an already beautiful scene. There is another and even larger bridge connecting San Francisco to the mainland at Oakland across the bay. This is a multiple-span bridge 4½ miles long and crosses an island in the centre of the bay. There is another smaller island, away by itself and shaped like a battleship. This is the Alcatraz, the Federal penitentiary where Al Capone was once detained.

I spent 3½ days in San Francisco, but apart from a most interesting and rewarding visit to the Langley Porter Clinic, I devoted myself entirely to sightseeing, even going the lengths of joining a conducted tour on a bus similar to those I had so sedulously avoided in Los Angeles. In San Francisco, however, this proved to be a most valuable investment; in the course of about four hours, members of the omnibus party were taken through the church and gardens of the Mission Dolores and then on and up into one of the highest hills, returning through the Golden Gate Park, which is reputed to contain at least one example of every type of tree in the world, each one of which has been planted by hand. We stopped for a while here so that the gaping sightseers could watch the sea lions being fed at the Steinhart Aquarium, a spectacle equally fascinating in any part of the world. Here also I found some time to see some active but remarkably small sharks in one of the Aquarium tanks, swimming stealthily round and round and resembling more than anything else a pack of overgrown dogfish. In the next tank were some creatures quite unlike anything I have ever seen before, whose name escapes me but who will live in my memory because of thir entirely bizarre appearance. They looked like enormous slow worms, three or four feet long and about nine inches in diameter, with enlarged faintly wrinkled brows, small chubby lips and protruberant pale blue eyes. For some reason, presumably connected with their emotional needs, all except one of them had threaded their bulky bodies through sections of broken drainpipe with which their tank is supplied. The sole exception was in the course of manœuvering his ungainly head into the one vacant drainpipe left, as I stood watching. I would have felt bound to stay until he had completed this manœuvre even if it had meant missing the bus: it did not take him long, perhaps three-quarters of a minute, and when he had achieved it, he gazed calmly and complacently at me through the glass with the air of one who has attained his goal. It is hard to know who is to be the most admired or envied; the ingenuous creature who finds his satisfaction in life in so harmless concrete and simple a way, or the perceptive keeper, who first discovered that these beasts need only half a dozen drainpipes to make them happy.

The rest of the tour included views of both the bridges and a drive through the U.S.Military Reservation overlooking the Golden Gate called the Presidio. But I had found the Golden Gate Bridge something I needed to explore more personally, and for me the other highlight on a drive which also included views of buffalo grazing and wild seals swimming in the sea, was an astonishing exhibit in an antique store called the Cliff House at which we made a separate stop. This was a life-size statue carved in wood of a naked middle-aged Japanese man. He stands in a glass case illuminated by an electric light, his modesty protected by a minute loin cloth. Small booklets piled on a table beside him proclaimed that this was Ito Hamashi, a meticulously exact reproduction of the sculptor himself, who spent ten years executing this replica with the aid of mirrors and hundreds of pieces of wood which were glued or dovetailed together to make up the finished statue. In the interests of further realism, he had apparently shaved his own head and body and inserted the hairs one by one into the appropriate areas with a small gimlet. The overall effect, which in the words of the booklet "has been acknowledged by doctors as anatomically correct down to the last detail," was grotesque. It was labelled "Ito Hamashi; his masterpiece of himself." It is almost impossible to convey in words the totally unedifying spectacle which this masterpiece presented. In its slavish accuracy and complete absence of any suggestion of artistry or inspiration, other than the desire to perpetuate, life-size, a somewhat unprepossessing physique, there was something appalling. Yet there was also a macabre fascination in the thought that this skillful individual could have spent ten years of his life in labour so exclusively dedicated to absorption with himself that the final result was as hideous as it was accurate.

San Francisco remained full of fascination. I wandered through Chinatown which contains the one exclusively Oriental telephone exchange outside of Asia, where over 120 Chinese girls, each speaking several Chinese dialects, handle all the incoming and outgoing calls of this section of San Francisco; I also visited the old Fisherman's Wharf and rode the cable car, a small tram which ascends one of San Francisco's steepest hills by clutching with a mechanical claw an endless moving rope beneath the surface of the street. This took

me up to the Mark Hopkins Hotel, whose highest floor is one enormous circular room walled entirely with glass and containing tables and a bar where one can sit at dusk and see the entire panorama of San Francisco, both bridges, and the bay beyond, sparkle and glow into tiny jewels of coloured light. I left San Francisco on the ferry which crosses the bay to Oakland Station and connects with the "Overland Ltd.", the Union Pacific transcontinental train to Chicago. This goes through Sacramento, the capital of California, across the Sierra Nevada mountains covered at this time in snow, stops at Reno, and then follows a course almost due east to Salt Lake City, Cheyenne, Wyoming, skirting the northern tip of Colorado, then crossing Nebraska, Iowa and Illinois to reach Chicago.

My second stay in Chicago was almost entirely professional; I visited the University of Illinois and met colleagues from England working in the Illinois Neurological Institute. I also spent a day in the Institute of Juvenile Research and re-visited friends and colleagues in the University of Chicago. Then it was time to go on to Washington. This too was a long journey, but barely a third of the transcontinental trip from San Francisco to Chicago. It involved but one night on the train and this I spent sitting up in the Coach Section as an experiment in economy. The results were conclusive; I shall never, by choice, repeat that experience. I have travelled far more comfortably, of necessity, in the past: during the war sleeping on the floor of French trains in 1940, and later under hedges. Earlier still, in 1937 and 1938, two uncomfortable overnight train journeys in Europe, one to Germany in the third class compartment, the other to the French-Italian Alps huddled in the luggage rack, proved endurable because they were justified by the objects of the journeys and the cash available at the time. The train to Washington was a much advertised all-coach streamlined special, complete with stratadome, a device whereby a coach is equipped with an upper deck entirely roofed with plastic where passengers may ascend and gain, in the words of the advertisement "... a new thrill in travelling." But if the choice lay between a stratadome and a sleeping car for the same money, I know which I would choose.

Washington, the Chestnut Lodge Hospital at Rockville, and above all the Henry Phipps Clinic of the John Hopkins at Baltimore where I enjoyed the kindness and hospitality of Professor Whitehorn, were all valuable and unforgettable professional visits. But now time was beginning to press upon me, and I had to forego re-visiting the historical monuments and famous buildings of Washington to travel on to the Institute of Psychiatry in the University of Pennsylvania in Philadelphia and finally, to New York.

New York was my last stop before returning to Boston. It was a city I had visited before and knew I would be visiting again. On this occasion I spent all my time at the New York Hospital, one of the most fabulous examples of hospital architecture in the U.S. and was privileged to talk for a while with Professor H. G. Wolf. There, too, I met again a friend and colleague from the Maudsley, Dr. Lovett-Doust, whose extremely promising research in psychosomatic medicine was earning considerable interest. On the train from Grand Central Station to Boston I read through the notes I had made in my journal of this long and complex journey, and knew that it would be months, perhaps years, perhaps a lifetime, before the challenge and opportunity which its harvest presented to me could be fully assimilated or conveyed.

(To be continued)

GUY'S AND THE WEST INDIES

On 16th February, Princess Alice, Countess of Athlone, was installed as Chancellor of the University College of the West Indies, and on 18th February, the Earl of Athlone laid the Foundation Stone of the University College Hospital. Guy's will be interested to know that four of her nurses are attached to the hospital—Miss Foster Smith, Matron, and three sisters—Mrs. Bickneil (née Richardson), Miss E. Waterman, and Miss F. Beck.

AN INVITATION TO ARTISTS

Original *Line Sketches* depicting some part of the Hospital are required for reproduction on Christmas Cards. Readers are invited to submit such drawings before 30th May next. Decision as to suitability will rest with the Editor and appropriate payment will be made to the successful artists.

Correspondence

Small Bowel Obstruction

SIR,—I was interested to read Mr. Lawrie's clinical lecture on the subject of small bowel obstruction. I have very recently had under my care a case of carcinoma of the jejunum in a young man of 29 years. The case presented as a perforation, although at operation there was apparently complete obstruction of the small bowel.

The case notes may be of interest as tumours of the jejunum are comparitively rare.

Case Notes.

The man, aged 29 years, was seen complaining of sudden pain in the umbilical region. The pain was not localised, but tended to be left sided. There was associated nausea but no vomiting. His bowels had not been opened for 36 hours. He stated his general health to be fair. There was only a few pounds loss in weight.

Previously there had been a history of vague abdominal pain since 1947. In June, 1949, he had been admitted to hospital. Gastric investigations had been carried out and proved negative. Laparotomy was performed and the appendix removed. Following the operation he had continued with much the same symptoms.

On examination he was pale, clammy and sweating. P.40, T.97°F. His abdomen moved fairly well but caused exquisite pain. There was an area of almost " board-like " rigidity to the left of the umbilicus. Sounds were absent over this area. The history and signs were suggestive of a perforated peptic ulcer and the man was discharged to hospital.

At operation a piece of jejunum was found about six inches in length, in the centre of which was a stricture encircling the bowel. At this point the mucosa was polypoidal and the various layers of the bowel were replaced by firm white tissue suggestive of malignancy. There was an enlarged mesenteric lymph node about half to three quarters of an inch in length which was also suggestive of growth. A small perforation was present and apparent complete occlusion of the lumen of the jejunum. Excision of the affected segment was performed. Side to side anastomosis was carried out in view of the hypertrophy of the proximal jejunum. The abdomen was closed without drainage. The pathological report of the jejunum was a glandular carcinoma. The lymph node was found to be almost completely replaced by malignant growth. Sixteen days after operation the patient was discharged home, satisfactory, if only temporary progress, having been made.

Comment.

Malignant tumours of the small intestine are somewhat rare. The adenocarcinoma, of which this is an example, is the most common. It occurs in the ileum more frequently than the jejunum. Tumours of the jejunum are reported as 0.5-5.0% of all cancers. They are most prevalent in the sixth decade. This is a very young patient, although Whillis records a case of his own aged 25 years.

The prognosis for recorded cases is very unfavourable; in this patient where a mesenteric gland is involved the outlook is bad in the extreme. The annular sclerosing growth following a polypoidal malignant change is apparently a usual form in this part of the gut. Obstruction only develops at a late stage because of the fluid contents of the small intestine. Presentation as perforation is not common.

Yours, etc.,

ERIC GRAHAM,
Surgeon Lieutenant, R.N.V.R.

Sick Bay,
H.M.S. Mull of Galloway.

Reviews

Varicose Veins. By R. ROWDEN FOOTE. Butterworth. *Price* 32*s.* 6*d.*

The problems of varicose veins remain vexing and perplexing and no course of treatment is acceptable to all. Mr. Rowden Foote outlines one way which he has found suitable in a vast experience of many hundreds of cases. His exposition is clear and his views on treatment the logical outcome of the pathology propounded. In brief, he recommends judicious ligation of incompetent veins, with simultaneous gentle scarification of the intima of the isolated segments and injection of the minimal quantity of sclerosant to obtain complete thrombosis. He is perhaps a little optimistic about the permanence of healing of ulcerations by supportive measures alone, especially those of the post-phlebitic type, but this in no way detracts from the value of this method to heal ulcers initially.

The book is profusely illustrated with good diagrams and photographs and has a fascinating introductory chapter on historical landmarks. Anyone interested in the treatment of varicose veins will find this book most useful.

F.N.G.

A Textbook of Histology for Medical Students. By E. E. HEWER. 5th Edition. Heinemann. *Price* 25*s.*

This is undoubtedly the best textbook of histology for medical students. With each edition it becomes even better. In the present one, the detail is adequate without being excessive and the terminology has been brought up to date. The photomicrographs are excellent, with very few exceptions, such as that of figure 14.

It can be recommended without reserve to those for whom it has been written.

I.H.

May		ACADEMIC
		Exhibition. Surgical Department. "Fractures."
8th.	1.00.	Mr. Brock. Clinical Lecture. "Modern Cardiac Surgery."
9th.	1.00.	Professor Perrin H. Long, M.D., F.A.C.P. (Professor of Preventive Medicine, Johns Hopkins Hospital). Clinical Lecture. "The Natural History of Certain Viral Infections of the Liver."
10th.	4.45.	Guy's Science Club. Dr. W. H. H. Merivale. "Some Investigations into the Abnormal Distribution of Body Hair." Staff Common Room. (Tea 4.30)
11th.	1.00.	Mr. Glover. Clinical Lecture. "Common Rectal Conditions."
	4.30.	X-ray Meeting. Gordon Museum.
12th.	2.15.	Medical Department. Combined Round. Preclinical Classroom.
13th.	10.00.	Mr. D. H. Patey, Middlesex Hospital. Surgical Departmental Round. Clinical Theatre.
13th.	10.00.	Dr. Forman. Demonstration of Skin Cases. Preclinical Classroom.
15th.	12.00.	Mr. K. E. Pringle. Dental Clinical Lecture. "The Straight-forward Orthodontic Case." Dental Theatre.
15th.	1.00.	Professor Rushton. Clinical Lecture.
16th.	12.00.	Dr. McArdle. Neurological Demonstration. Preclinical Classroom.
	1.00.	Dr. Baker. Clinical Lecture.
18th.	1.00.	Professor Perrin H. Long, M.D., F.A.C.P. (Professor of Preventive Medicine, Johns Hopkins Hospital). Clinical Lecture. "The Natural History of Influenza."
	4.30.	X-ray Meeting. Gordon Museum.
19th.	1.00.	Dr. Campbell. Clinical Lecture. "Mitral Stenosis."
	2.15.	Medical Department. Clinico-Pathological Meeting. Pathology Lecture Theatre.
22nd.	1.00.	Mr. Stamm. Clinical Lecture. "Flat Feet."

May		SPORT
13th.	2.30.	Cricket 1st XI *v.* Honor Oak Park. (H.O.P.).
	2.30.	Cricket 2nd XI *v.* Honor Oak Park. (Away).
14th.	2.00.	Cricket XI *v.* Ashtead. (Away).
17th.	2.30.	Cricket 1st XI *v.* Stoics. (H.O.P.).
20th.	12.00.	Cricket 1st XI *v.* Wadham College, Oxon. (Away).
	2.30.	Cricket 2nd XI *v.* Chartered Banks. (H.O.P.).

Sport

RUGBY

NORTH KENT "7's"

At Gravesend

Saturday, 22nd April, 1950.

Owing to the Easter vacation, we could only begin training for the Seven-a-sides a week before they were actually played. We therefore had very little time to get the selected players fit and to give them enough practice in playing together as a team.

In spite of this, the Guy's Seven sent down to Gravesend gave an extremely good account of themselves, and were finally defeated in the Semi-final by the eventual winners of the Cup—the Scottish Wanderers.

G. A. E. Baker was an extremely competent captain, scoring most of the points himself and backing up W. R. Thomas who had injured his knee in the first match. He also converted many of the tries scored—apparently much to his surprise! The whole team are to be congratulated on playing good open rugger and also in helping to digest most of the supply of ham sandwiches which were provided after the tournament was over.

We should like to extend our thanks and appreciation to the Gravesend Rugby Football Club for organising everything so well and for making such a splendid afternoon possible. We should also like to congratulate Brian Cremin for his brilliant exhibition dance at the "Rugger Hop" which we all attended afterwards at Milton Barracks, Gravesend.

The matches were played as follows:—

1st round
Guy's *v.* Old Gravesendians
Won 8—0 pts.

2nd round
Guy's *v.* Old Erithians
Won 8—3 pts.

3rd round
Guy's *v.* S.M.E.
Won 13—0 pts.

Semi-Final
Guy's *v.* Scottish Wanderers
Lost 0—5 pts.

Final
Scottish Wanderers defeated Gravesend

Guy's Seven: G. A. E. Baker (capt.), W. R. Thomas, T. Rowan, H. Riddols, P. Honey, G. Beresford, C. T. M. Wilson.

Middlesex "7's"

Two teams were entered from Guy's. The first started in a shaky manner against the Old Alleynians and rapidly conceded a penalty goal. The Old Boys put themselves further ahead with a try. Just before half-time Bellis scored a try to make the score 6—3. The second half showed Guy's in attack and tries came from Gray and Bellis, both converted by Davis while the O.A.'s scored a try. Result 13—9.

In the second round there was a tough struggle between Guy's I and Old Blues. Here Guy's started well when Gray scored and Davies converted. Later the Old Blues drew level. From then on both sides had scoring opportunities but nothing came of them. And so to extra time when Davies scored the winning try from a line-out.

In the third round Guy's I lost to London Welsh II in a disappointing game. Poor finishing and a certain measure of fatigue put an end to many promising bouts of inter-passing. In this game Guy's tended to pass the ball too often and straight running might have won the day. The final score was a goal, a dropped goal, and a penalty goal to a try.

The Guy's II team went out in their first game to Borderers 0—5 and one felt that the result might easily have been the other way about. It was a game of bad finishing and heroic defence on both sides and Guy's had plenty of the play. They could make nothing of an opening when they had the ball.

By comparison with last year this was a better effort on the part of the Club but more could have been done. The game requires a good deal of practice and a considerable degree of fitness.

ASSOCIATION FOOTBALL

SOUTHERN AMATEUR LEAGUE

Guy's *v.* Old Stationers

Away. Won 1—0.
22nd April, 1950

Guy's travelled to the Old Stationers' ground in search of much needed League points on Saturday, April 22nd. Their quest was satisfied by the only goal scored.

Guy's opened down the slope with a fairly stiff wind at their backs. The opening minutes augered well for the Hospital and with the ball almost continuously in the opponents' half it seemed that a goal was inevitable. But well positioned as the forwards were, they were unable to score and in the first half the extreme wings missed eight reasonable chances. Fortunately the defence held out and the second half started with the teams level. After twenty minutes a certain goal for Guy's was prevented by a defender handling, but the ensuing penalty was shot straight at the goal-keeper. This calamity however strengthened Guy's determination to score and following heavy pressure a corner by Cornhill was headed by Swift to Prince who headed home.

The end came with the Hospital attacking but unable to increase their score.

That the defence held out was due in no small way to the excellent display by Southgate who was brought in at the last minute. He is the most improved player in the club this season and his only fault lay in a slight lack of distributive sense, but this will develop with experience.

Swift and Matthews played with their usual determination, surely the best wing halves in the league on their day which, fortunately for Guy's, is very regular.

Lipington and Allan formed a strong line of defence, the latter's kicking being an object lesson.

With one match still to play, Guy's have improved on their last season's League display.

Team: A. Fearn; D. Allan, D. Lipington; D. Matthews, P. Southgate, A. Swift; B. Cornhill, E. Sturdy, C. Leckie, A. Prince, P. Holloway.

SAILING CLUB

In the second Inter-Hospitals race of the season at Burnham-on-Crouch on Saturday, April 29th, the result was: 1*st*, St. Thomas's; 2*nd*, London; 3*rd*, Guy's; 4*th*, Bart's; 5*th*, Charing Cross; 6*th*, Royal Free; 7*th*, U.C.H.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the following posts commencing 1st October, 1950:—

Dental Mechanics and Prosthetics

2 Registrars for 6 sessions each per week
†2 Registrars for 2 sessions each per week
†2 Registrars for 3 sessions each per week

Dental Surgery

1 full-time Assistant to the Director of the Conservation Room
†3 Registrars for 6 sessions each per week
†Registrars for 2 sessions each per week
Registrars for 3 sessions each per week
Administrative Dental Officer, 6 sessions per week

Dental Diseases of Children

†2 Registrars for 3 sessions each per week

Preventive Dentistry

2 Registrars for 6 sessions each per week

Extractions and Minor Oral Surgery

2 Registrars for 6 sessions each per week

Dental Bacteriology

1 Assistant Clinical Pathologist (Dental) for 3 sessions per week

Special Anatomy and Histology

1 half-time Demonstrator

Assistant to the visiting Dental Surgeons

1 full-time Registrar

Forms of application are obtainable from the Dean, Guy's Hospital Medical School, to whom applications should be sent not later than Friday, 12th May, 1950.

(†*One of these appointments may be graded as S.H.D.O.*)

APPOINTMENTS

Dr. R. E. Rewell appointed Consultant Pathologist to the Liverpool United Hospitals.

REGIONAL HOSPITAL BOARDS

The following Guy's men appear in the list of appointments and re-appointments by the Ministry of Health.

Sheffield Region. New Member. Hugh Barber, F.R.C.P.

East Anglian Region. Re-appointed R. B. Fawkes, D.S.O., M.C., M.R.C.P.

North West Metropolitan Region. Re-appointed. A. Stavely Gough, F.R.C.S.

South East Metropolitan Region. Re-appointment. E. R. Boland, C.B.E., F.R.C.P. A. Talbot Rogers, M.R.C.S.

INNOMINATE CLUB DINNER

The Annual Dinner of the Innominate Club, Chairman Dr. H. G. Close, will be held at the Trocadero Restaurant at 7.0 for 7.30 p.m. on **Friday, June 9th, 1950.** Dress Optional. Tickets 23/-. Will those who wish to attend please communicate with the Secretary: G. T. Hankey Esq., 89 Harley Street, W.1. In the afternoon of June 9th, Innominate members will be welcomed to the ward rounds, operations and demonstrations given by the Senior Staff of Guy's Hospital. Will those who wish to attend please advise Mr. N. L. Eckhoff beforehand.

BIENNIAL DINNER

The next Biennial Dinner will be held at the Connaught Rooms, Great Queen Street, Kingsway, W.C.1., on **Friday, October 6th, 1950,** at 7.0 p.m. Dr. H. C. Cameron has kindly consented to act as Chairman.

The price of the dinner ticket is One Guinea, inclusive of tips, but exclusive of wines.

There is no need to appeal to the large number of Guy's men who attend regularly, but there are many who have never been present at a Biennial Dinner.

These functions have always been a great success and undoubtedly afford the most popular opportunity for old Guy's men to meet together and renew the friendships of their student days.

It has been decided to restrict this event to Guy's men only, but the number of Guy's men who may be invited as Guests is unlimited.

O. Gayer Morgan (*Hon. Secretary*) 115a Harley Street, W.1.

S.C.M.

The Provost of Southwark is to give a talk on Friday, 12th May. at 4.30 p.m., in the Chaplain's Room (Keats House).

All those interested are welcome.

CHANGE OF ADDRESS

Norman A. Punt, F.R.C.S. 22 Embankment Gardens, S.W.3., and 51 Harley Street, W.1. (Tels. Flaxman 6540 and Langham 3711)

A. Leigh Smith, D.R.C.O.G. Lauderdale House, Staines, Middx. (Tel. Staines 184)

BIRTHS

KENT.—On April 9th, 1950, at Nuffield House, Guy's Hospital, to Elsie (née Duffield) wife of Dr. John V. Kent—a daughter, Susan Caroline.

MARSHALL.—On April 8th, 1950, at Redlands Hospital, Glasgow, to Margaret (née Greenwood, S.R.N.) wife of J. F. Marshall, M.A.—a son.

TAYLOR.—On April 7th, 1950, at Masons Hill Maternity Unit, Bromley, to Susan (née Goldschmidt) wife of Brian H. Taylor, L.D.S.—a son.

ZORAB.—On April 22nd, 1950, to Janet (née Baillie) wife of Edward C. Zorab, of 20 Brunswick Place, Southampton—a son.

MARRIAGES

MAY—DOWSON.—On April 15th, 1950, at Surbiton. Surrey, David G. May, M.B., B.S., M.R.C.S., L.R.C.P., to Thelma Josephine Dowson.

ROBINSON — PORTMAN - LEWIS. — On Saturday, March 11th, 1950, at St. Stephens Church, Twickenham, Middx., Alan Arthur Robinson, B.D.S., to Mary Portman-Lewis.

DEATHS

HALAMANDRES.—On April 12th, 1950, Barbara Helen Halamandres (née Rigby) S.R.N., of Saltdean, Sussex.

STEPHENS.—On March 9th, 1950, Harold Freize Stephens, M.R.C.S., L.R.C.P., late Medical Supt., Coleshill Hall Mental Deficiency Colony, Birmingham.

EDS. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1613 *20th May, 1950* *Ninepence*

PASSIM

NEW wine and old bottles may well have a proverbial relationship, but this is a fact which has surely escaped the attention of those ultimately responsible for the upkeep of the College. This building, originally constructed in 1890, may well have been the glory of a terra-cotta era. Today, with its almost Cromwellian aspect of destruction, little remains to be said in its favour. The fabric is fast decaying and the accommodation afforded is regarded by some as virtually primitive. Admittedly the roofs leak water only when it is actually raining but, in other respects, the amenities surviving are disappointingly few. As long ago as 1941 a formal valediction appeared in the *Gazette*—an announcement that was received with widespread satisfaction even then. Since that date, as the President of the Residents has so recently pointed out, further obituary notices have been delivered on occasion. Surprise, therefore, gives way to wonder, as hordes of workmen descend upon the site. One thing is certain, the expenditure involved in their employment must be truly forbidding.

The present generation of Residents is acutely sensible of the need for better quarters; existing deficiencies face them at every turn. What they do doubt, nevertheless, is the possibility of current measures being justified by future returns. Posterity, after all, must be taken into some account, for all that Tim Healy said in its disfavour, and better lavatory facilities are but little compensation in a building which is badly planned, irreparably damaged and inexcusible in almost every other respect.

Some day, it is said, a new Guy's will arise, for vast and ambitious plans have already been prepared. When they will eventually materialise, no one in authority is prepared to make a guess. Meantime, however, the principle is " make-do-and-mend." Existing structures are patched-up and refurbished, departments are re-arranged instead of being re-housed and, when it comes to unavoidable extensions, a proliferation of hutments is actually contemplated.

A more permanent and imaginative plan is immediately required. The unit system is accordingly proposed. On the new site separate sections would be created as the urgency demanded, not as temporary expedients but as essential elements in a comprehensive design. In the end, the parts would make up the whole and thus would be incorporated that future hospital, the final establishment of which is the wish of so many.

Readers will learn with regret of the resignation, owing to ill-health, of Mr. J. H. E. Winston, Secretary to the Medical School. He was first appointed as Librarian, in 1914. Then, after war service, he joined the Medical School Office, becoming Secretary in 1925 upon the retirement of the late Mr. S. H. Croucher.

Mr. W. F. Cook has been appointed Secretary to the Medical School as from 12th May, 1950. No worthier or more popular successor to Mr. Winston could have been chosen.

A welcome to Professor Perrin Long is now overdue. He is the first of the visitors from Johns Hopkins this year. As occupant of the Chair of Preventive Medicine in Baltimore he is an expert on anti-biotics and already, by his distinct personality, he has made a definite impression at Guy's.

Minor Maladies of the Nursling

By R. C. MacKeith, D.M.

A Clinical Lecture delivered at Guy's Hospital Medical School on 6th March, 1950.

Introduction

GENTLEMEN,—Some of you are like myself, in the process of learning to be fathers. We fathers of today see far more of our baby children than did our fathers of us, and even if you are not co-opted to assist in the daily care of the first child, you can take it that your assistance will be called upon at times when more have arrived. Pointing out that it was waste of a highly trained philosopher to put him to washing up, an Oxford lecturer recently stated that the Oxford wives found washing up is being done better than ever before. It is certainly far from waste of time for a doctor to help, within limits, with the care of the baby. It is also possible that the use of a highly trained person may lead to more useful observations and discoveries. It is at least arguable that there is more misery from teething, wind, and colds then from so-called major disorders. Your observations on and your answers to the problems we are considering here will be of great interest to me.

General

Some of the minor maladies of infancy arise from minor degrees of disturbance which at times are dangerous, and the possible causes of minor upsets are much what we review as causes of major disturbances. Some are *dietetic* in origin. As Hilaire Belloc said ," You know, at least you ought to know, for I have often told you so," that dietetic upsets result from :

Errors of Quantity
Errors of Quality
Errors of Technique.

If for " too much, too little ; wrong food, wrong technique," we add

Infections Enteral and
Infections Par-enteral

we shall have a list which will include the causes of most of the nursling's minor maladies, and which will be useful in seeking the cause of any symptoms.

Crying

Adequately to deal with the subject of crying in infancy needs more time than is available. May I merely remind you that crying may be from :

Hunger
Loneliness
Cold,
in addition to Pain.

Pain of course may result from wind, from earache, from teething. I doubt whether babies cry merely because they are wet or have passed a stool. It is always worth trying to discover why a baby is crying. Yesterday my second daughter, fifteen months old, was crying. I was told that she was being obstreperous and was not to be picked up. I half disobeyed this command, for I looked into the room and said, " There, there, sweet child." But she only cried louder, so I shut the door and retreated. Two minutes later a more observant person went in and found she had two fingers squashed in the hinge of the pram shade.

Wind

The new parent soon discovers what an important part mothers and grandmothers ascribe to wind. The clinical picture to which this diagnosis is applied is seen when, shortly after or between feeds, the child cries, doubling his " little legs " up on to his abdomen and will not easily be comforted. This is attributed to alimentary colic, from gas in the gut. As Dr. Charles Baker recently reminded us, this gas is not gas produced by fermentation in the bowel, but is *swallowed* air. These X-ray pictures show the large

air bubble in an infant's stomach at the end of a feed, and how nearly all of this can be belched up. " Getting the wind up " after feeds is an important point of feeding technique. It is done by putting the child upright on the lap or over the shoulder and rubbing his back till he belches. Success usually comes in a few minutes. Sometimes when the air is not brought up quickly success comes when he is given another chance after having his nappy changed.

More air is swallowed if the child sucks on an empty breast or bottle or on a teat with too small a hole. *Less* air is swallowed if the child feeds rapidly. Dr. Russell Reynolds recently helped me make an X-ray film of a baby feeding. It is clear that the number of sucks to each swallow depends on how much milk is obtained at each sucking, for the milk collects in the lower pharynx until enough is in there to be worth swallowing. If the feed comes fast there will be a swallow to each two or three sucks ; if slowly, then swallows will occur after five or six suckings. One need not fuss too much about fast feeding, provided it is not spilling into the larynx and making the baby cough and splutter. Fast feeding may have disadvantages, which are not due to swallowing too much air. It may lead to hiccup, or the baby may not think that he has had enough, He cries, but not from colic, from pseudo-hunger.

An *overfed* baby may cry from colic in his over-burdened intestine. This is another of the clinical pictures often wrongly attributed to wind. Wholly breastfed babies do not suffer from overfeeding. Bottle fed babies may. A baby who has been gaining ten ounces a week for several weeks and whose weight then becomes stationary, who has some vomiting and some loosish stools, and cries in the night, deserves to have his feeding reviewed and probably revised and reduced.

An *underfed* baby may suck his fingers and swallow air and get windy colic. He may also cry from hunger. Remember that a baby's appetite may vary from day to day and feed to feed. Occasional violent crying after a feed may be from hunger even though the child has had his usual amount. In fact *hunger* probably accounts for much of the crying and drawing-up of the legs which is attributed to " wind." This is a persistent crying unlike the intermittent crying of a true colic. If you watch a baby with intussusception he lies contented and suddenly cries, with a surprised angry cry which after a time passes again into a period of peace, as the colic fades away.

When your child has " wind " remember to consider whether there is an error of quantity rather than of feeding technique.

Hiccup

This seems to disturb the baby but little, but it may stop him going to sleep. It seems to follow over-fast feeding and also when the baby is too quickly laid down after a feed.

Diarrhœa

Loose stools in the breastfed infant are usually an unimportant observation requiring no action to be taken. In the bottle fed infant, loose stools may be important, calling for a review of the possible causes as cited at the beginning of the lecture. In any case of doubt, give the baby's alimentary tract a rest. In mild cases cut down the next two feeds or give him water only for one or two feeds.

Constipation

A phobia of constipation is a common minor neurosis. The pleasure and satisfaction from a good bowel action is a natural pleasure, but it is unnecessary to dose all infants with a weekly powder. The powder given to nearly all infants in Bermondsey is of calomel. It may be harmful. Many bottle-fed infants pass hard stools without much discomfort. Some have their bowels open only once in every two or three days.

Constipation is only important if the passage of stools is painful.

The *commonest cause of constipation is underfeeding.* If the baby is gaining well it is worth giving him more water between feeds, and replacing some of the fat by sugar or better still, by starch, putting Farex into the feed instead of cane sugar.

Colds and Coughs

In the adult colds are a nuisance.* In the baby they may be dangerous for they may open the door to infections of the respiratory tract with virulent staphylococci.

A cold may also block the nasal airway. This matters little to an adult, but may be serious for a small infant. In the newborn baby the *pattern of breathing* laid down in his nerves and muscles is of breathing through his nose. The airway through the mouth is closed by apposition of the tongue against the palate. So firmly is this pattern laid down that if the nose is blocked, a newborn baby has great difficuly is learning to breath through his mouth.

A child with a cold in the nose cannot feed easily and may also cry from the discomfort of the difficulty in breathing. The airways must be opened, they cannot be cleansed by pledgets of wool inserted into the nose.

Sneezing induced by tickling the nostrils may help or ephedrine (½% aqueous) nose drops. or ephedrine and tyrothricin nose drops. They are well given quarter of an hour before feeds, for not more than two or three days at a time.

Coughs

Remember that "9 out of 10 coughs in childhood originate above the larynx." And remember also that in Pertussis in infancy, there is often no whoop. There is however the characteristic cough, worse at night, paroxysmal in character and often causing vomiting and expectoration of mucoid sputum. Pertussis is however not really a minor malady, unless it has been modified by Pertussis Vaccination. While not perfect, this is a useful measure and should be given before the sixth month, combined with anti-diphtheria immunisation.

Teething

It is *not* always true to say that teething only produces teeth. Some babies teeth without trouble, but others cry and have coughs. The cough is probably a sequal of the excess saliva which runs down into the bronchial tree carrying bacteria from the mouth, and causing bronchitis.

The specific for teething is aspirin. Half a tablet—2½ grains, is a suitable dose. It can be given crushed in a spoonful of jam. There is on the market a pleasantly flavoured 1½-grain tablet—"Junior Aspirin," which babies eat readily.

Skin Disorders

Inpetigo of the newborn is a potentially serious malady and should be treated thoroughly by penicillin given orally. Local applications of penicillin are better avoided.

"*Cradle Cap.*" These dark crusts on the scalp are accumulations of sebaceous material. They arise from a lack of soap and water, due to the popular fallacy that it is dangerous to rub the baby's fontanelle.

Sore Buttocks follow loose stools—especially in overfed bottle babies in whose diet there is an excess of fat. Modify the diet and protect the skin with vaseline gauze. Leaving off the nappies is a useful further step.

Ammoniacal Dermatitis. In this condition the baby's napkin area is scalded on the convex surfaces. The scrotum and the tip of the penis are especially affected. In the circumcised, the meatus may be ulcerated and the opening closed by scab formation.

The scalding is produced by strong alkaline urine. The alkalinity is due to ammonia, as can be learnt by the sense of smell.

The ammonia is produced after the passage of urine, by fermentation, which can be stopped by mild antiseptics. Use boric acid, which must be kept from children as it is not a harmless substance but a poison. To prevent ammoniacal fermentation and consequent dermatitis, half a teaspoonful of finely powdered boric acid is sprinkled on the nappie when it is pinned on to the baby.

---

* "Voilà l'anglais avec son sangfroid usuel" has been translated "here comes the Englishman with his usual bloody cold."

PHIMOSIS

Phimosis in a baby is rarely an indication for circumcision. The baby can usually pass water easily and eventually the foreskin will retract. In general circumcision is better avoided if possible once a child is over four months old. At two years old the child is certainly interested in his penis and it is probable that more or less serious mental trauma sometimes results from this operation. The child's mind is logical and if sent into hospital he may conclude that he is being punished for having angered his parents. If on top of this he is circumcised he may mistakenly think he is being punished by castration.

Circumcision is rarely necessary and should be avoided if possible after the age of four months up to the age when the child can understand your explanation; should it be considered at birth? I don't know.

A number of peoples practise circumcision and one would like to know the real reason. Carcinoma of the penis can be avoided by cleanliness. One can understand that in a nomadic desert race meeting sandstorms, there may have been special reasons, but this hardly explains the persistence of the custom. Possibly it is explained by the tradition that circumcision increases coital efficiency. This is an unanswered problem but certainly it would be wise to try and avoid submitting boys over six months old to this operation.

More New Paint

We have become accustomed to much new paint at Guy's recently, but its application to the Chapel calls for special mention. The central memorial plaque in the Chapel porch bears grateful remembrance to Sir Astley Cooper "the first surgeon of his day," whose remains are deposited in the crypt by his own wish. It is further stated that the memorial was erected on the occasion of the repair and redecoration of the Chapel in the year of our Lord 1858.

The present redecoration was largely made possible by a benefaction under the will of the late Mrs. Grace E. Wells. The work was carried out under the direction of Mr. T. F. Ford, F.R.I.B.A., by Messrs. Holland and Hannen and Cubitts. The old brown and dark cream paint and innumerable lines and texts have all been replaced by a design of the utmost simplicity. The prevailing colour is light cream ivory, with duck-egg blue to the lower series of columns, carried through to the capitals of the upper columns, while the capitals of the lower columns have been treated with gold leaf. The large central cluster of lights in the ceiling has been removed and in its place a fine nine-branch chandelier hangs to gallery height. This has enabled the delicate central moulding of the ceiling to be seen at its best. The arms over the Guy Memorial have been emblazoned to their proper colours. Alterations to the small Chapel of the Blessed Sacrament have been carried out and suitable blue and gold hangings will be fitted.

There appears to be no record of the decoration of the Chapel when it was built in 1770, but it is felt that the present scheme shows its beauty to the full. The grace and beauty of the vaulting and delicate mouldings display the eighteenth century classical style at its best and one realises for the first time that Guy's Chapel is a delightful piece of domestic architecture.

It was most fitting that the first service to be held in the redecorated Chapel should have been the Founder's Commemoration on May 4th, transferred this year from May 6th. The address was given by The Right Revd. The Lord Bishop of Colchester, who was Chaplain to the Hospital in 1939. He reminded us of the significance of the Cross of Christ, expressing the dual love of our Lord, upwards to God and outwards to the needs of the whole world. This love, he said, should be the mark of the Christian life, and expecially in the life and witness of a hospital. "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me."

We are thankful for the life and witness of the Chapel at Guy's and we are thankful that it is now so worthily and beautifully cared for.

D.G.

America Re-visited

By Sir HENEAGE OGILVIE, K.B.E., M.D., M.Ch., F.R.C.S.

I HAD regretfully decided that I could afford neither the time nor the money to go to America for the meeting of the International Society of Surgery at New Orleans in October. However, when I was asked to speak at the Western Surgical Society meeting at Santa Barbara in December, and later at the Mayo Clinic and the University of Minnesota with expenses paid, and also to attend the meeting of the Southern Surgical Society at Hot Springs, Virginia, I jumped at the opportunity this gave me to attend these two very famous societies whose members included most of my friends, and to visit California and Virginia. My four previous visits to America had covered very much the same ground, the Eastern Cities from Montreal to Washington, and the Middle West, and I had had no opportunity to see the holiday states. By flying everywhere I could fulfil these engagements and make other visits, yet be away from England no more than four weeks.

Saturday, November 26th.

Leslie drove Magdalen and me to Heath Row in the Daimler. Formalities easy, but the plane was delayed two hours, so we were given lunch.

We were off at 2 p.m. The strato-cruiser is a strange design, a large four engined monoplane a little bigger than the D.C.6, with a belly clipped on underneath as if by an afterthought. There is a deep groove where the belly joins the main plane ; probably a bomber design with the bomb-bay adapted for peace time uses. There are 54 seats, rather like the D.C.6, but the seats are broader, better padded, and tilt more so that sleep is easy. In addition there is a real good wash place in front, and a smoking lounge behind. Amidships a little spiral staircase leads down to a cocktail lounge, an oblong room seating 12 to 20 in sofas round a floor space. There is a cocktail bar but cocktails were served (free) only from London to Shannon. There was much more engine noise in this lounge than above, and beyond giving the break in monotony of walking up and down stairs, I doubt if it is worth its structural cost and air resistance. On the other hand, if it is, as I suspect, a converted bomb-bay it is as good a use as any other.

We came down at Shannon about 3.30 p.m. and then had a second lunch, this time with beef steaks. In about threequarters of an hour we were off over the Atlantic. It got dark. People wandered up and down to relieve monotony. There was no one on the plane, of either sex, with any outward and visible attraction. About 9 p.m. (British time) cocktails were served, followed by an excellent dinner. Some time in the small hours we landed at Gandar, an unattractive airport, with no diversions beyond sending a few postcards and few comfortable seats. At 4 a.m. we landed at Idlewide. Customs were brisk and courteous ; immigration ditto. Idlewide is a long way from the centre of New York, but La Guardia, which is nearer, is built on reclaimed swamp and is considered unsuitable for the modern super-large and super-heavy plane. As we were released it started to snow, and we felt very fortunate that we had landed before it started. We were sent in on a bus, and taking a taxi I arrived at the Barbizon Plaza about 6.45 a.m. I went to bed for an hour and then had a bath and rang up Henry Cave. I lunched with him and walked back across Central Park in the snow to the Barbizon, and in the evening dined at the St. Regis with Richard Lewisohn and his wife and daughter.

Monday, 28th.

Henry Cave called for me at 8 a.m. to take me to the Roosevelt. On the way we called at the bank and I cashed £20. Henry was doing a breast, a large single cyst, but he had the frozen section set up ready. The method of preparation and mounting seemed excellent and I asked the pathologist to send me details to hand on to Parks. In the other theatre a colleague was doing a Smithwick, a nice careful job. The great splanchnic nerve was in two parts, a lower one coming from about three ganglia in the normal position and an upper one, larger, that ran alongside the aorta and in contact with it

We went to the University Club for lunch where we met Lewisohn again. After taking us to his office, Cave lent us the car and chauffeur for the afternoon, a very great service. We used it to go to American Airways to check up reservations, then to the Barbizon to pay bills and collect luggage, then to the American Airways departure station to leave the luggage, last to The Practitioner office. After a drink, I went and read at the air terminus till the bus went to La Guardia. We got off punctually at 6.45 p.m. in a 4-engined Douglas for San Francisco. The plane was a good deal less than half full. There were photographers waiting to take me, under the impression that I was " The King's Surgeon." I had to disillusion them. The journey was none too comfortable as we came down at Philadelphia, Washington, Nashville Tennessee, some other place and Tulsa Oklahoma, at each of which stops we were awakened to put on our seat belts. After Tulsa we had no further stops, and it started to get light as we were passing over land that looked from the air as deserted as the stretch from Cairo to Khartoum, presumably the " bad lands " that in the old days made California inaccessible except by sea. Then canyons, a range of mountains, increasing fertility and San Francisco. Unfortunately the plane goes nowhere near the main city and the Golden Gate. I was met by two representatives of American Airways who checked my reservations, gave me coffee and did everything to help ; like all Americans, they felt very hurt that I was not stopping to see their beautiful city. They also told me, with the interest of a news-hound, that another plane like mine, and running close to it, had just crashed in Texas.

I left at 10 a.m. in a Dakota for Santa Barbara. As we got there we reached low cloud with sharp ridges of mountains sticking up through it everywhere, like islands in an ice floe. We made an instrumental landing, which always fills me with deep terror, but came out of cloud few hundred feet above the airport and landed nicely. Warren, Mrs. Cole and Dr. Jennings, the local secretary of the Western Surgical, were waiting for me and took me to the Hotel.

Unfortunately there was fog, visibility about 200 yards, the whole time I was in Santa Barbara, but it is really a lovely place. The vegetation is subtropical and the trees and the houses reminded me in many ways of Nairobi, but as they do have a winter they have many trees, such as oaks and oranges, that will not grow in Kenya. They say the winter is never cold and the summer never hot. Certainly the weather, apart from the fog, was ideal while I was there and the Pacific rollers, majestic but invisible, broke on the beaches outside the Hotel.

The Biltmore Hotel was possibly the nicest I have ever seen, with its combination of cottage simplicity and millionaire luxury. It is built on two floors in Spanish colonial style, the walls massive, whitewashed pillars and angles, the roofs tiled outside and huge natural beams inside (no olde oake), the floors large red polished tiles, the decorations the simplest possible, great deep sofas and chairs with bold black and white stencilled chintzes, the gardens beautifully laid out and kept. In addition to the main building, there were annexes of two or three flats grouped round the grounds, in many of which permanent residents live to avoid the worries of housekeeping.

The morning session of the Western Surgical was almost over, and after cleaning up I joined the Coles at a luncheon in the Coral Casino in the Biltmore grounds. There was a lovely swimming bath, wide and long, surrounded by palm trees. On one side a large half moon of white sand for bathers to lie on (I was told it was electrically warmed), and on the other a big veranda round three sides of a square, with small tables dotted round. There was a magnificent buffet lunch, hot and cold, and I met dozens of people many of whom, like Waltman Walters, Howard Gray and Harrington of the Mayo Clinic, I knew already.

I slept in the afternoon. In the evening there were two separate cocktail parties, both of which we attended and then after dinner we went to a theatre in the town, a Revue by the Strawhatters, a company of ex-Californian University students turned professional, very good fun. The spontaneity of the amateur and the polish of the professional.

Wednesday, 30th.

The Warren Coles had the room next to me. They called at 8 each morning and we had breakfast together.

The first paper was on Vagotomy by Waltman Walters. He assessed it very cautiously. He put forward recurrent ulceration after adequate gastrectomy as the only indication for vagotomy alone. In some vagotomy plus gastro-jejunostomy is done. Where motility is lost after the operation, it returns in from 6 to 18 months. A later follow up of the vagotomy cases showed the result to be excellent in 70%, poor in 30%. An analysis of the operations done for ulcer in his service in 1948 showed 75.7% were gastrectomy, 9.8% gastro-enterostomy and only 3% vagotomy.

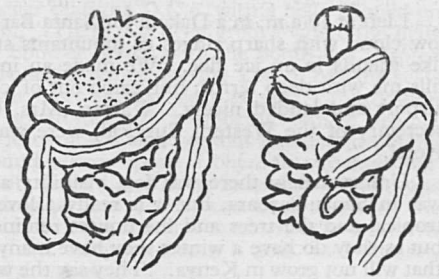
I discussed the paper, stressing the danger of applying animal experiments to human physiology.

Robert Wise of Portland, Oregan, read a paper on diffuse polyposis of the stomach; usually seen with achlorhydria, malignant change likely. Recommends total gastrectomy.

E. S. Judd discussed end-to-end œsophago-duodenostomy in total gastrectomy. 15 done this way in 188 total gastrectomies. Discussed factors that make it easy, thin women, ptotic type etc.,—thinks that when feasible it is preferable.

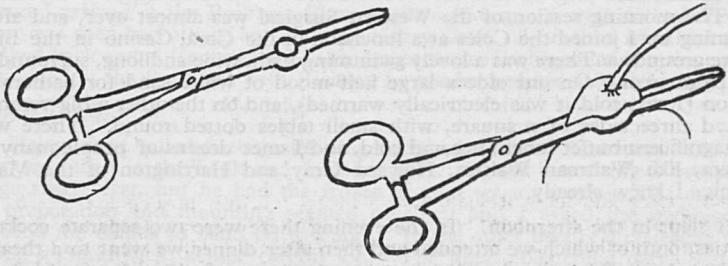
Dr. Max Sinninger of Cincinatti, discussing Judd's paper, emphasised the danger of spread to the duodenum in growths lying near the pylorus. In such growths radical duodenal resection should be done and œsophago-duodenal anastomosis was therefore impossible.

Dr. Lawson of Oakland described a method of using the cæcum as a stomach. Two cases had been done by a colleague who started the operation, one by himself. The lower ileum is divided and implanted into the transverse colon. The distal ileum is then joined to the œsophagus, and the ascending colon to the duodenum.



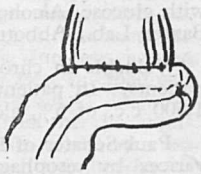
Charles McLaughlin of Omaha discussed the factors responsible for improved results in acute intestinal obstruction. In the series presented, 16% were in the first year of life, 53% between 1 and 60 and 31% over 60. Deaths in the first group were 42% and in the second and third 2.8% each.

James Jackson of the Jackson Clinic, Madison, Wis., discussed the case of a woman with marked secondary anæmia of unknown origin in whom a carcinoma of the jejunum involving the mesentery was found. The whole small intestine except 4 inches of jejunum and 4 inches of ileum, was resected. The patient survived. In the discussion Dr. Cogswell of Tucson pointed out that in reporting such cases, what mattered was not the amount of intestine removed, but the amount left behind and that loss of jejunum was more serious than loss of ileum. For irritating discharges from intestinal fistulæ he advised the use of Dreft.



Hunt, of Kansas, described a clamp for surgical decompression of the colon in obstruction. The clamp has a small aperture that is put round a needle inserted for decompression and through which a catheter is put afterwards.

Joel Baker of Seattle advocated low end-to-side rectosigmoid anastomosis in resections, as being easier, more secure, and giving a larger opening.



My paper on "I Couldn't Agree With You Less," came last, and was well received. I had written an opening describing my pleasure at coming from the fog of London to the sparkling sun of Southern California, but I put it the other way round and raised a laugh.

In the afternoon we drove up over the range of hills, quickly leaving the fog and getting into the sun, to a ranch about 20 miles away where a huge "barbecue picnic" had been organised. The scene was a broad valley, with woods and open fields. There were long wood fires over which iron grills perhaps 12ft. by 6 ft. were supported on piles of bricks, and on these two or three hundred half chickens were being roasted by men who kept turning them over with pitch forks. We went along in line, collected a half chicken, ice cream and strawberries and every kind of extra and took them to long tables. A two-man band of violin and concertina in cowboy costume played round the tables and two cowboys in silk blouses on magnificent horses with fancy harness rode round.

In the evening we went to a cocktail party at the house of James Saint, brother of Charles Saint of Capetown. What with the fog and the obscurity of the address, we took an hour to find the place. Coming out, Warren Cole picked an orange about the size of a billiard ball from a tree, and when we went into dinner put it on his hat outside the dining room. When we came out the orange was still there but was now 4 inches in diameter.

Thursday, December 1st.

The morning session opened with an excellent review of Meckel's diverticulum by Arthur McGraw of Grosse Pointe, Michigan, based on 103 cases. An important lesson was that the diverticulum can be found as much as 5 feet above the ileo-cæcal junction, and the intestine should be searched as far as this, where in supposed appendicitis the appendix does not seem bad enough to explain the picture.

Another first rate paper on diaphragmatic hernia in infancy by Conrad Baumgartner of Beverley Hills (where the stars live) followed. In 50% of cases the hernia was present at birth, the chief symptom being circulatory and respiratory embarrassment. A mistaken diagnosis of atalectasis or cerebral trauma is common. Surgery should be undertaken within a few hours of birth, before gas collects in the bowel. Approach from the chest is hopeless in these herniæ, since the contents cannot be pushed back into the abdomen, but relatively easy from below.

Ralph Loe of Seattle read a paper on massive upper gastro-intestinal hæmorrhage. Where source of hæmorrhage is in doubt he recommends making a small hole in the stomach and passing a proctoscope or sigmoidoscope.

Thomas Snodgrass of Wisconsin read a very interesting paper on the results of gall bladder surgery in Rock County based on 1,000 cases. In this district there are small towns widely scattered and the surgery is done by general practitioners. They do however record, analyse and criticise results and apparently manage to restrain the man who is a menace. They present their analysis of some group of cases every year. The results in this series were remarkably good. The interesting points in the paper were the small percentage in which the common duct had been explored, and the confirmation of the well known observation that the results of removing a gall bladder without obvious disease are unsatisfactory.

A paper by John Reynolds of Chicago on the post-operative care of œsophagectomised patients showed that the commonest cause of death is unexpectorated mucus. He recommends tracheotomy where repeated bronchial aspiration is needed. He also uses intravenous alcohol, a method I heard advocated in 1938 but that I thought had been dropped. Several others feel it has its place.

5% ethyl alcohol put up by several drug houses in various solutions. "Beclysyl"—Abbott Lab. 5% C_2H_5OH in distilled water with Vit. B and C and 5% glucose. Other preparations—Alcohol only in saline, Alcohol with glucose, Alcohol with amino acids. Searle, Smith, Khine and French; Baxter Lab.; Abbott—all make various solutions now on U.S. market.

Valuable in chronic alcoholics. Immediately post-operative in hysterical patients. In patients susceptible to narcotics or resistent to them. 500 to 1,500 c.c. of 5% alcohol daily—produces euphoria plus nutrition.

Paul Schafer of Kansas City read a paper on the treatment of œsophageal varices by œsophago-gastrectomy. Apparently the idea is Wangensteen's who thinks that in bleeding varices there are two elements, the varix and ulceration of its surface by peptic juice. Seems a bit like abdomino-perineal resection for piles.

Friday 2nd.

The third paper on the surgical correction of constrictive peri-carditis, by Emile Holman of San Francisco, was a winner. He uses a split sternal approach, with transverse division of the sternum at the second interspace. Points he emphasised were :—

1. The need to free the left side of the heart before the right (the right would blow out if freed first).
2. The need to remove the diaphragmatic part of pericardium.
3. The need to remove the right side, back to the superior and inferior vena cava.
4. The need to free the base of the pulmonary artery.
5. The advisability of removing some at any rate of the calcified epicardium.

Harrington of the Mayo clinic, discussing, said that the operation is for symptoms rather than pathology. A constricting pericardium is not necessarily calcified, nor is a calcified pericardium necessarily constricting.

Ralph Byrne of Los Angeles read a paper on 121 splenectomies for traumatic rupture. 89 were operated on for immediate hæmorrhage and 32 for delayed hæmorrhage. The majority showed a diagnostic triad;—abdominal rigidity, abdominal tenderness and shoulder pain.

Howard Naffziger presented an excellent paper on the role of stellate block in various intracranial conditions. Naffziger was there, but the paper was read by John Adams. Within the year they had done 376 stellate injections on 225 patients with conditions such as acute thrombosis, embolism, post-operative hemiplegias and aphasias, cerebral Burgers' disease, subdural hæmatomas, etc. Results as recorded were excellent. Glen Bell (San Francisco) sitting next to me thinks the method has a great place in General Surgery, where post-operative cerebral thrombosis is not uncommon. He advises an anterior approach between the two heads of the sterno-mastoid, aiming the needle at the seventh transverse process. He thinks this route much safer than the lateral or posterior ones. The needle goes very close to the vertebral artery and may puncture it, but this seems to do no harm. He uses a fine needle and injects 3 c.c. of Novocaine.

C. Hunter Shelden of Pasedena followed with a fine paper on intra-cranial aneurysms. He showed a series of first class X-rays taken with 35% diodrast and figures of the operative approach.

The meeting concluded with two unimpressive papers on cancer of the breast. On the whole American breast cancer surgery seems to be puddling along paths that we consider unprofitable. There is a tendency to operate on everything, including late Stage II and Stages III and IV and the results are depressing. Even in Stage I a 62% survival rate seems to be accepted as not so bad and in the later stages where the man has attempted to do a radical long after it serves any useful purpose and close the gap with skin grafts, the results are far worse than those of deep therapy alone. A lot of fancy incisions designed to be cosmetic, none of which give proper access to the axilla, are described with parental pride.

After lunch Dr. and Mrs. Clegg of Los Angeles drove the Warren Coles and myself down to Pasadena. They had bought a large roof crate, which, loaded with all our luggage, made four large dents in the roof of the saloon, but they popped out again in the evening when the weight came off them. The drive was down the coast and as we reached Los Angeles we ran into fog again. We turned North through Hollywood as the sun was setting and followed Sunset Boulevard for about ten miles. At this time the road was packed from pavement to pavement with a jam of cars returning. The size and the rather tawdry appearance of Hollywood as seen from this thoroughfare at this hour and in this fog was surprising. The houses of the stars on Beverly Hills were only seen as lights. The Boulevard itself was lined with white stucco buildings of the show type that looked as if they had been built for some world's fair and were designed to last a year or two only, and that were used as a backing for a wall of neon lights. We called at the house of a generous lady who took us out to a "joint" for supper. Two enormous beef steaks were put before each of us and a little paper bag to take home what we couldn't eat for the dog. After supper we saw the Warren Cole's off to Chicago on the "Super Chief" one of the newest and most palatial Diesel expresses.

I went up to the aerodrome, but the fog was thick and they held out no chance of flying. At midnight we were bundled into a bus and taken to another aerodrome where there was no fog, wondering why they had not thought of this hours earlier. As it was we got off one and a half hours late and I missed the connection in Chicago. The plane was equipped but not used as a sleeper, so that the seats were hard and sleep was impossible. However, a charming girl, instead of the formal introduction of the air hostess, said, "Good evening. I'm Cherry and she's Kitty," and as we neared Chicago brought a fine breakfast. At Chicago the air people took great trouble to put me on the next plane to Cleveland, a D.C.3 going down nearly empty.

Stecher had been warned by telephone and was waiting for me. We had lunch at his club, a look round the town and a dinner party of friends, which included Claud and Mrs. Beck, in the evening. Stecher has a most beautiful home, whose grounds go right down to the lake. Air conditioning and heating are done by natural gas that comes from a pipe out of the ground at the end of his garden. Below stairs is a magnificent play room, a feature of many American houses, where the younger generation can entertain their friends in unlimited numbers without unduly disturbing the rest of the household. Sunday afternoon and evening I spent with James Dixon and his wife (new since I was last in Cleveland) a charming lady with a real Georgia drawl that would put any story across.

On Monday morning I went to the Crile (Cleveland) Clinic. They have been badly hit by the recent death of Tom Jones. The clinic has been enormously enlarged since Crile's day and is now a huge building on the lines of the Mayo Clinic, but smaller. I first looked round the orthopædic floor with Dixon, then the general surgical floor with Bob Dinsmore, finally with George (Barney) Crile. Crile is one of the best looking men I have ever met. He is very positive on two things, that vagotomy with gastro-jejunostomy is the best treatment for duodenal ulcer and that radio-active iodine is likely to replace surgery in the treatment of hyperthyroidism. During the morning I went across to the Lakeside Hospital and watched an hour of an operation that Beck had described to me on the Saturday night. For coronary infarction, he makes a new blood channel by using a vein transplant as a channel leading from the thoracic aorta to the coronary sinus. He has done it a number of times in dogs, and, I believe, twice in human beings. When I saw him he had the pericardium open, the coronary sinus clamped, and was half way through anastomosing one end of a bit of vein about 1½ inches long to the cut end of the coronary sinus. The heart was jumping away and each tiny stitch was a great adventure, like harpooning a leaping salmon. At the end of the hour he had just finished the anastomosis and proved it water-tight and was about to proceed to join the other end of the vein end to side to the aorta.

I returned to the Cleveland Clinic where I was given lunch and then talked to the boys for an hour. I caught the plane to Cincinnati and went to the railway station, the newest and most gorgeous in the United States with cinema,

arcades of shops, barber's shop, bathrooms, etc., almost a town. Fortunately I had three hours to spare, for the buying of a ticket at an American booking office is almost like getting a visa at an Embassy, and took in this case an hour and a quarter, as I had been rash enough to pay for the ticket in London and the chit I produced meant nothing till it had been discussed at great length with any number of departments over the telephone. Even with cash buying a ticket is a solemn undertaking, involving the filling out of endless details three times in longhand, and four tickets an hour is smart handling. A night journey, breakfast in the train and a coach drive of nearly twenty miles, from Covington to the Homestead Hotel at Hot Springs.

Hot Springs is a wooded pastoral district with copses on the hills, broad valleys and a series of three or four medicinal springs. The Homestead Hotel is quite a praiseworthy attempt to make a palatial hotel look like a five storey farm house without descending to ye olde Tudor beammes. One peculiarity is the numbering of the floors ; in my wing the ground floor is 5 and the third floor 8, in Henry Cave's and Jimmy Allen's wing the ground floor is 11 and second floor 14, there being no number 13. Around the hotel there are putting and croquet lawns, a golf course, a swimming bath, riding stables and walks.

We arrived about 8.30 a.m. and had time for a bath and breakfast before hearing Al Blalock's presidential address at 10 a.m. on the Training of a Surgeon. I missed the rest of the morning session, a group of papers on vascular surgery and hæmatology.

The evening session started weakly, but warmed up as it went along. The third paper by B. N. Carter of Cincinnati on the thoraco-abdominal incision, was a good review. He advises the approach for high or total gastrectomy, for difficult spleens, kidneys and adrenals, and for portocaval shunts. Churchill discussing, said that to open the door widely, whether by intercostal incision or through the rib bed, it is necessary to extend the incision right back to where the ribs hinge on the transverse process. The fourth paper (No. 9) " Endometriosis, the Scourge of the Private Patient," was excellent in itself and followed by a stimulating discussion by Joe Meigs of Boston. The paper showed an enormous preponderance of endemetriosis in white private patients, compared with white ward and coloured patients. He thought the probable factor was a higher marriage age. Endometriosis very rarely goes on to malignancy. Meigs gave the figure from two Boston Hospitals.

	Hospital I	Hospital II
Private patients	28%	30%
Ward patients	5%	5.75%

He finds very little endemetriosis in those who marry early. On the other hand the incidence of cancer of the cervix and breast is higher in those who marry early.

Papers 10 and 11, no comment. Paper 12, by Grey Caldwell of New Orleans, reported a series of 94 cases of acute osteomyelitis (mostly staphylococcal) treated by penicillin and sulphathiazole without surgery other than aspiration of abscesses and instillation of penicillin. Lehman of Charlotsville thinks it is unwise to omit early decompression (cortical window only). Venable of San Antonio thinks the completely non-operative treatment advised by Caldwell leads to suppression rather than cure.

(*to be contined*)

COMMUNICATIONS.

On the 6th May the new telephone installation at the Hospital was effectively inaugurated. Unification has been achieved. Thirty G.P.O. lines lead into the Hospital Exchange located in the Round House and staffed during the day by three operators. Almost three hundred extensions lead off to the various wards and departments, sub-exchanges being sited in the Dental School and College. The same receivers serve both the automatic internal system, with its complicated and fascinating machinery set up in the Round House too, and the G.P.O. connections with the outside world.

" Teething " troubles were few, although one houseman endeavouring o make contact with Addison Ward did contrive to get into earnest conversation bout a patient with the G.P.O. Continental Exchange !

Innocents Abroad, or a Tale of Two Students

THE skies were grey and wintry as we left Guy's, yet there was a peculiar tense excitement in the atmosphere that pervaded the hospital—it was the spirit of approaching Christmas. It seemed a strange thought that for us this year there would be no Children's party, no Christmas dinner in the wards and none of the usual celebrations that were so familiar of old; instead, we might perhaps be eating our turkey and plum pudding sitting in shorts and in the tropics some two weeks out into the Atlantic. And indeed we were there.

Two of us from Guy's were fortunate enough to be included in the English Team competing in the British Empire Games held at Auckland, New Zealand, in February. Full of good intentions, clasping a sheaf of the latest papers on sea-sickness and a large box of various " remedies," our little knowledge was quickly put to use for we hit an 80 m.p.h. gale. But nature prevailed and even the lastest advances in therapeutical knowledge seemed unable to relieve the agony of those first few days at sea. Despite the waves we survived and quickly found ourselves in that sea of trade winds, galleons and treasure troves—the Caribbean. There we spent Christmas.

One early morning, before most good souls are awake, one of us was rudely disturbed by an errant flying fish. Guided perhaps by some long lingering odour of the Medical School dogfish, it glided somewhat peturbedly in through the porthole. Needless to say, it was quickly seized, photographs were taken as proof and a little amateur anatomical dissection was then attempted. But the old skill had been lost too long; we were not to be afforded the privilege of discerning with which muscles the flying fish actually performed.

There is in the Caribbean a small Dutch island, in the leeward group of West Indies, called Curacao. This spot, as well as being noted for its famous liquors, is one of the largest oil depots in the world. Here our ship refueled. The approach at night provided a fantastic sight, for burning apart from the refineries is a perpetual flame which for ever flickers, casting shadows and silhouetting the whole island so as to make it visible many miles out to sea. The function of the flame is the combustion of the many inflammable gases produced in the manufacture of fine oils. The liberation of these fumes into the atmosphere would rapidly cause the asphyxiation of the population; in fact rapid death would come to the whole island should the flame be extinguished for only a few hours. We noticed with interest that the higher officials in the oil companies advisably had their " estancias " built upon high ground.

Our next stop was Panama, with its incredible canal, once described by Sir Frederick Treves as " the greatest structural work ever attempted by man." Of the peninsula he said is is " A mere causeway a few miles in width, yet no spot of its size can rival its interest." This is indeed so, for within these few miles can be seen ostriches and alligators, sharks and sloths, whilst many a highly-coloured land crab measuring perhaps some twelve inches across, scuttles before one's feet. What would have been quite incredible to those physicians contemporary to Treves of course is the way in which the natives now apparently dwell quite happily in the midst of the swamps. Drug treatment and the wide use of D.D.T. seems to have reduced the malaria and mosquito problem to an insignificant level—a contrast indeed to the hundred thousand deaths from malaria that caused de Lesseps to abandon his attempt at excavation in 1901.

And so on across the Pacific, with the grandeur of the sunsets and the perfect geometry of the Southern Cross at night epitomizing the magnificent beauty of that infamous ocean.

Arriving in Auckland we were greeted by the Lord Mayor, Government Officials, Maori Dancers and the traditional hula hula-girls who, together with the immense crowds, collected at the quayside for the official welcome. When this was finished the team was taken in coaches on a parade around the city—led by massed bands. It is impossible to describe the overwhelming hospitality of the New Zealand people. Everywhere we were fêted and invitations abounded. The two of us from the Hospital were contacted and met by many old Guy's men and it was only the pressure of other commitments

that prevented us from accepting the hospitality of many more—a fine example of the close link between the past and present.

It was quickly very apparent that nothing could be too much trouble for those who were organizing the Games. An example of this is well shown by the experience of the oarsmen, numbered among whom was Tony Butcher from Guy's. They had the misfortune to discover that the boat in which they were to race was lost in the cargo space of the ship which brought it over. It was only by the intervention of the Prime Minister that they received their boat two days and its rowlocks one day before the event. As it was they had to compete with very little practice—and but for the strenuous efforts of those concerned to combat dock strikes and transport difficulties would probably have not rowed at all.

The actual Games need only passing mention as the races and results are past history; the whole organisation and general public, however, deserve great credit and admiration both for the way in which all the events were run and the tremendously sporting attitude that was shown throughout. Surprisingly enough, despite the supposedly poor performances of the English team one gold and three bronze medals lost their way and finally turned up at Guy's.

Once the Games were over the team was taken on a tour of the South Island. Many remarkable sights were seen, leaving a permanent impression on one's memory; most impressive perhaps was the sight of more than a hundred Maori warriors, fully bedecked with warpaint and spears, charging full tilt at us—small wonder that certain pictures from a well-known text book of forensic medicine flashed through the mind!

Tony Butcher, making up a pair oar with another of the team and competing several times during the tour, experienced an embarassing series of misfortunes. At Christchurch they broke a rigger, at Timaru broke an oar and finally at Dunedin with great dexterity managed to sink the boat. It was not until at Nelson that they amazed the press—who were by now very sceptical—and startled their team mates who were watching from the bank, by shooting to the front amidst much splash and spray to win this, their last race of the tour.

At Dunedin, Mr. Fulton, the senior surgeon, showed us over the hospital and the medical school, which is the leading one in New Zealand. The annual intake is 120 students. Considering that this figure is drawn from the whole country, the selectors have many headaches when interviewing the aspiring entrants. The buildings are very similar to those at Guy's, though of course somewhat smaller; and a separate block includes laboratories, lecture theatres, dissecting rooms and a library. The curriculum is basically of the Edinburgh pattern, with considerably more routine lectures than in the average London medical school and rather less time in the wards; this is capped by the traditional long holiday in the summer—even during the clinical period. For the last six months of the clinical course the students leave the teaching hospital and "walk the wards" of other hospitals throughout the country. As in America and Australia before going into practice a previous compulsory period of hospital ntern is required after qualifying. In the hospital itself the department evincing most pride was the neuro-surgical unit. This was situated in a wing of its own, commanding about 30 of the total 600 beds and as it is the only one of its kind in New Zealand everything was up to the very highest standard; this included a cubicle layout for the beds as opposed to the open ward.

Our stay was very pleasant and busy and we carried away happy memories of a wonderful country. So impressive indeed are the general conditions and standard of living in New Zealand, that four members of the team elected to remain behind as immigrants. What greater compliment could be paid to the hospitality of a land. And so we departed from the Antipodes, sailing back across the waters to face the early spring in England. Yet the return provided perhaps the greatest memory of all. For, as one crosses London Bridge Rhodes Hawkins Tower on Hunt's House comes into view—so quickly down and through the gates—"What's this, no more wooden blocks in the car park," and "no—surely not—a Smith's bookstall in the Park?" Such small things obtrude themselves into prominence, but basically all is the same: Spring is here, the birds still sing in the Park—the old familiar faces are still there—Yes, Guy's is still Guy's and there's no place like Home.

P.H.K.

Reviews

Round the Fountain. Pieces from the Journal of St. Bartholomew's Hospital. 5th Edition. *Price* 4*s.* 9*d.*

"I suppose you have finished that play by Euripides," said my wife, as another peal of laughter was intruded into the serene quiet of a wet Sunday evening. "No," I replied, "for the message is but a fraction of the messenger's speech, and the youthful hero, though charming, is inclined towards the close to be disputatious with his mother. Tomorrow will have to see Athena descending from the clouds, as yesterday saw our popular Assistant Matron perform the same feat in another production, the Resident's Play, and for the same purpose, to deliver from error the bewildered. This evening I have laid Euripides aside in favour of the good men of Bart's, whose merry jests have been thus provoking me into audible mirth." Then I read her a few samples of their wit, for she understands such matters, and she laughed herself and agreed that they were good.

Round the Fountain is the cream of all the jests that have appeared in our neighbour's journal during a period of rather more than half a century. Its tone, I suspect, is somewhat lighter than of our own *Gazette*, which enjoys a reputation for its scientific and literary articles. But when we sit at home exhausted by work (the idea is Tchaikovsky's) and some periodical that we have been reading drops from our hands, or—as is far more likely—when we have cast that periodical away, because childish graphs and unnecessary tables, bad English and bogus Greek are things that we can bear no more, then here to our hands is a sparkling, restorative draught to be had from the fountain of Bartholomew's.

The collection is prettily bound, is decently printed on tolerable paper, has a few good illustrations and at the price of five shillings is not expensive.

H.St.H.V.

Biology : An Introduction to Medical and Other Studies. By P. D. F. MURRAY. Macmillan. *Price* 25*s.*

Professor Murray obviously understands medical students. He has written a most attractive book which will not only teach the beginner those fundamentals of Biology generally considered necessary for him, but which also will help him to develop the biological attitude of mind which is so essential in later studies. It is often taken for granted (quite incorrectly) that this outlook will develop in some rather obscure way from a mere consideration of frogs and rabbits. Professor Murray obviously does not share this belief and sets out deliberately to show how man comes into the picture.

It is generally agreed that in the future development of pre-clinical studies there must be more integration of what have hitherto been considered as separate subjects ; in particular, Biology must lead on naturally to studies in Anatomy, Physiology and Biochemistry. Professor Murray has written with this end in view and his book will be of very material assistance in bringing about this reform. This book can be warmly recommended.

From time to time contributors to the *Gazette* complain of the uselessness of the Botany they were at one time called upon to learn. This sometimes causes the reviewer to wonder if they have any idea of the plant biology that is taught to-day. Anyone who feels like passing strictures on the Botany of the first M.B. course would do well to read Professor Murray to make sure that they have some knowledge of the type of teaching about plants that the present-day student receives.

G.E.H.F.

THERE WAS A SOUND OF REVELRY BY NIGHT

The Residents' Ball was held, most successfully, at the Park Lane Hotel on Friday, 12th May. Lady Symonds was a perfect hostess, cocktails were liberally dispensed, the toastmaster made himself heard, the dinner was good, refreshments were adequate, Tommy de Rosa provided the music and Richard Murdoch the cabaret, everyone danced, or tried to—and a very good time was had by all.

Correspondence

Proctalgia Fugax

SIR,—With apologies to Mr. Tanner as from novice to expert. It is certain I have never identified this ailment with this title. In three cases with pain awakening the patient in the early morning hours and not knowing what to do next I prescribed a suppository of quinine and urea hydrochloride at bed-time on twelve successive nights. Apparently it sufficed as they have not complained since. Perhaps this may be only the near mechanical equivalent of Mr. Tanner's unpleasant compressor rubber bulb. My patients don't like their tight sphincters stretched. A patulous one is another matter. In my few cases the inevitable lubricating effect of paraffin in the morning seemed to me rational. Anyway, if it is a matter of paraffin I feel it wants a long handicap over breakfast when the tract is fairly empty and it really does oil the engine. In another case of the kind I came to grief through failing to reach or suspect a high sigmoid carcinoma in the early stages.

As one of the least distinguished of Guy's men I write with diffidence and foreboding. Perhaps advancing age tricks one into ridicule and disaster, but maybe some will grant that the reflections of any age provide some passing interest or amusement to the better informed who quite rightly pride themselves on solid advancement.

Yours, etc.,

Knaresborough. HORACE STEINBACK.

The Buffaloes

SIR,—You may perhaps wish to publish the following. In your issue of the 25th February, there is an item in "Correspondence" by "One who was there," from Bury St. Edmunds, concerning the initiation of certain Guy's students as members of the Ancient Order of Buffaloes.

The writer does not mention what he told me at the time that, very soon after the events in question ,on crossing the Colonnade one afternoon he was met by Joe Whitbread with the usual greeting of "Good afternoon sir," followed by a whispered, "and how are you brother?"

Yours, etc.,

Tobago, B.W.I. "RETIRED TOBAGO."

May		**ACADEMIC**
		Exhibition. Surgical Department. "Fractures."
22nd.	1.00.	Mr. Stamm. Clinical Lecture. "Flat Feet."
	4.00.	Sir Sidney Smith, C.B.E., M.D. (Regius Professor of Forensic Medicine, University of Edinburgh). "Reconstruction in Cases of Crime." Physiology Theatre.
23rd.	12.00	Professor Perrin H. Long, M.D., F.R.C.P. (Professor of Preventive Medicine, Johns Hopkins Hospital). Clinical Lecture. "The Background for the Clinical Use of Antibiotics in Dental Medicine." Anatomy Theatre.
	1.00.	Mr. Hutton. Clinical Lecture. "Spinal Analgesia."
25th.	1.00.	Professor Perrin H. Long, M.D., F.R.C.P. (Professor of Preventive Medicine, Johns Hopkins Hospital). Clinical Lecture. "The Natural History of Typhus Fever."
	4.30.	X-ray Meeting. Gordon Museum.
26th.	2.15.	Combined Round. Preclinical Classroom.
June		
		Exhibition. Surgical Department. "Thyroid Surgery."
1st.	4.30.	X-ray Meeting. Gordon Museum.
2nd.	1.00.	Dr. Boland. Clinical Lecture.
	2.15.	Combined Round. Preclinical Classroom.
5th.	1.00.	Dr. McArdle. Clinical Lecture.
May		**SPORT**
27th.	2.30.	Cricket 1st XI *v.* Bognor Regis. (H.O.P.)
29th.	11.30.	Cricket 1st XI *v.* Crofton Park. (H.O.P.)
		Cricket 2nd XI *v.* Crofton Park. (H.O.P.)
June		
3rd.	2.30.	Cricket 1st XI *v.* Hampstead. (H.O.P.)
		Cricket 2nd XI *v.* Inns of Court. (H.O.P.)
4th.	11.30.	Cricket XI *v.* John Tanous XI. (H.O.P.)

Sailing Club

" That is a Sailing Club tie you're wearing, isn't it ?"

" It is."

" Tell me, where is this place Freezem-on-Crutch, where you sail."

" Burnham-on-Crouch you mean. Well, it's on the East Coast, in Essex, just north of Southend, about 40 miles from London."

" How do you get there ?"

" The train leaves from Liverpool Street and takes about two hours. When you get there you keep straight on down the one and only street, till you reach the Nissen Huts on the right, just past the Town Hall—and that's it."

" That's what ?"

" The United Hospitals Sailing Club—used to be a WRNS sick quarters during the war—now there are sleeping, feeding and bathing facilities for forty members, male and female. The sleeping accommodation is somewhat primitive, you do your best to sleep in bunks, on biscuits, between blankets, but anyone wanting a comfortable night's sleep takes a sleeping bag. As for food, there's a white sunhat, red face and green apron called ' Bill-Bridge-the Steward,' who looks after that aspect."

" There's racing on Saturday afternoon—you can crew for the Pundit Clubs, the Royal Corinthian or Royal Burnham Yacht Clubs in one of their boats, or in one of our own dingies. Crews are always wanted."

" That's all very well, but I haven't got a clue !"

" Don't worry about that, whenever they come to us for a crew, they always expect a complete clot as far as sailing is concerned, anyway. There's nothing difficult in crewing, as long as you don't mind being sworn at, more than somewhat, by the skipper at crucial moments in the race. There's always a hot rum at the end of the race to reward you efforts."

" I see. What happens on Sundays."?

" The form is to load the dinghies with beer, sandwiches and anything you can lay your hands on, then cruise up the Roach to the Plough and Anchor at Paglesham or some other quiet spot for the day. The keen types spend the day sailing madly up and down the Crouch, till exhausted and its time to catch the train home."

" Tell me, how do I book a bunk ?"

" You ring WAT 4625, St. Thomas' House, the porters there do the booking—that is after you have paid your subscription."

" One last thing."

" Yes ?"

" Can you lend me twopence !'

Sport

CRICKET

Guy's *v.* Wanderers

At H.O.P. Lost by 6 wickets.

Guy's started the season by winning the toss. Batting on a slow wicket the side did quite well to get 175 all out by 3.0 p.m. The Wanderers, always one of our stronger opponents passed this total with six wickets in hand, two minutes before the rains came.

It is encouraging to note the large number of new students interested in the game, four of whom were included in this side.

Guy's

D. E. Blake, c. Williamson b. Gadsley ..	66
N. R. Cooke, b. Fulford	23
P. L. Pickett, c. Williamson b. Gadsley	22
D. N. Lipington, b. Gadsley	1
D. M. E. Allan, c. Janbere b. Gadsley ..	37
W. Howells, c. Wicket b. Gadsley ..	5
A. F. Jones, l.b.w. Gadsley	15
P. Sandfield, c. Brown b. Tulford ..	0
H. Bissoon Dath, not out	0
W. Tweed, b. Fulford	0
W. Garland, b. Fulford	0
Extras	6
Total	175

Wanderers

Total for 4 wickets 177

Guy's *v.* Beddington C.C.

At Beddington. Lost by 22 runs.
7th May, 1950.

Beddington	130
Guy's	108

Guy's *v.* Honor Oak

At H.O.P. Won by 6 wickets
13th May, 1950.

Honor Oak won the toss and batted first. T. Smith opened the bowling and got two wickets in his first over with extremely good balls. Bowling really well, he completely dominated the batsmen and continued to get four more wickets, all for 33 runs. The fielding was very keen and clean, and very little was given away. Prentice, fielding at mid-off, broke the fifth wicket stand, taking a catch while both airborne and horizontal. Howells kept well, taking two good catches at the wicket.

Guy's batting showed a quality of cricket that was delightful to watch. Well placed shots provided many extra runs, and Cook and Allan took every opportunity right from the beginning. Gray accompanied Allan in a second wicket stand of 70, both batting very attractively and scoring fluently. In fact, there was only one maiden over in the innings, and that towards the end.

Guy's won with 40 minutes in hand, having taken 1½ hours to get the runs.

Honor Oak	140

Bowling : T. Smith, 6 for 33; Pickett, 2 for 13.

Guy's (for 4 wickets)	154

Guy's *v.* Ashtead

At Ashtead. Won by 69 runs
14th May, 1950.

The coin stood on its edge, Jones blew, and Guy's went in to bat. Caution seemed to flatter the bowling—from the spectator's point of view—and the runs came rather slowly. The wicket was a little slow for Blake's liking, and he was not quite at his best. Bissoon Dath helped Jones to stabilize the situation, both batting with good control. Time was running rather short and when Prentice came in at the seventh wicket the score was 89. Between them they put on 93 runs at a rather faster rate, Bissoon Dath correctly and easily, Prentice with a flavour of farming.

Ashtead started a little behind the clock with 95 runs an hour to get. They took up the challenge, and did not hesitate to look for the runs. Smith found his length in his second over and the batsmen were again in trouble. The fielding was tight, and the batsmen had to make every run. Bissoon Dath was temptingly slow, inviting the batsmen to do something they shouldn't, and he reaped his reward.

Ashtead always promises a good day's cricket in the happiest surroundings, and so it was again this time, with additional thanks for their generous hospitality.

The score-book was most attractively kept by Margaret.

Guy's

D. Lipington, c. Henty b. Marchall ..	14
N. R. Cooke, c. Henty b. Marshall ..	4
E. R. Gibbons, st. Rankin b. Barnard ..	8
D. Blake, c. Henty b. Marshall	13
M. C. Gilbert, st. Rankin b. Marshall	3
W. Howells, run out	3
A. F. Jones, c. Rankin b. Marshall ..	20
H. Bissoon Dath, l.b.w. b. Marshall ..	59
H. R. Prentice, c. Street b.	41
H. Meyer, not out	7
T. Smith, not out	3
Extras	16
Total 9 wickets declared ..	191

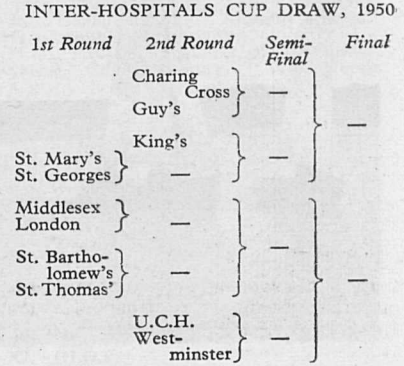
Bowling : Marshall, 22—7—66—7

Ashtead

Total 122

Bowling : T. Smith, 4 for 39; Bissoon Dath, 4 for 18.

INTER-HOSPITALS CUP DRAW, 1950



Hospital Information, etc.

UNIVERSITY OF LONDON

Senate

Dr. E. R. Boland has been appointed to the Senate by the Faculty of Medicine.

Teachers

The following have been recognised as Teachers of the University in the subjects indicated in parentheses.

Dr. E. J. Moynahan (Dermatology)
Mr. F. N. Glover (Surgery)
Mr. A. R. F. Thompson (Dental Surgery)

ROYAL COLLEGE OF PHYSICIANS OF LONDON

F.R.C.P.

At a Comitia of the College held on April 27th, the following Guy's men were elected to the Fellowship :

T. Rowland Hill Ralph Kauntze
A. M. G. Campbell

TERRITORIAL DECORATION

The Territorial Efficiency Decoration (T.D.) has been conferred on Lt. Col. G. V.L. Williams (T.A.R.O.) The Royal Army Dental Corps.

MISSING

The following books have been missing from the Surgical Department Library for some weeks. Will the borrowers please return them forthwith :—

A Practice of Orthopædic Surgery. T. P. McMurray.

Surgical Clinics of North America. June, 1949. August, 1949.

JOYCE GREEN HOSPITAL

The Annual Reunion and Prize-giving at Joyce Green Hospital will be held on **Saturday, 8th July, 1950.** Prizes will be distributed at 3 p.m. Tea will be at 4 p.m. and Sports at 5 p.m. All those who have been associated with Joyce Green Hospital will be welcome.

AWARD OF BLUES

The award of the following Blues and Half Blues recommended at a recent meeting of the Blues Committee was approved by the Clubs Union Council on April 27th, 1950.

Full Blue	*Half Blue*
Association Football Club.	
D. M. Lipington	A. Prince
	D. Allan
Boat Club.	
C. C. Bull	R. D. France
	J. McKenna
Boxing Club.	
D. M. Lipington	A. H. Atkinson
	B. Cremin
	W. Watson
	T. M. Winstanley
Fencing Club.	
H. B. Powell	B. L. Mallet
J. R. B. Ingram	P. Sykes
Golf Society.	
I. Caldwell	
Rifle Club.	
A. G. P. Jennings	
Squash Club.	
D. E. Blake	M. A. C. Lyon
P. Pickett	
Swimming Club.	
	J. Kendall

Printed orders authorising purchase of the appropriate colours have been forwarded to the people concerned.

GUY'S HOSPITAL LADIES' ASSOCIATION

The Derry Roof Gardens (Derry and Toms Ltd.) High Street, Kensington, W.8., will be open in aid of Guy's Hospital Ladies' Association Comforts Fund—**Tuesday May 30th to Saturday, June 3rd.** Daily 9 a.m. to 5 p.m. Saturday 9 a.m. to 1 p.m.

As many visitors as possible are invited to help the Fund during this week.

PASS LIST

CONJOINT BOARD

March 1950

PATHOLOGY

D. G. E. Alldridge
D. B. Amos
B. I. Copeland
J. F. A. Everson
G. C. A. Holden
J. V. Jeffs
K. E. Maclachlan
H. F. Pile
N. L. Rowe
P. W. Ruggles
J. A. Rycroft
H. Shapira
I. M. Sharpe
*C. B. Vaughan
C. N. Watson

MEDICINE

*R. Baxter
*A. G. Blyth
*A. E. R. Buckle
*J. C. Camac
D. F. C. Deacon
*A. C. de B. Eksteen
*G. A. L. G. Glazebrook
*T. S. Hart
*J. W. Hughes
E. M. Hume
H. C. Killey
*G. A. Lawrence
W. A. Openshaw
*J. B. Parsons
*R. J. Powell
*A. M. Reader
N. L. Rowe
F. B. Sartory
*P. R. Sowerby
D. E. Sturdy
R. I. J. Williams

SURGERY

W. V. Agnew
*J. G. Armstrong
J. A. C. Bamford
*R. Baxter
*P. J. Cook
J. W. Draper
*A. C. de B. Eksteen
*J. Foley
*G. A. L. G. Glazebrook
P. H. Gorodi
*G. A. Lawrence
*M. J. R. Mackrill
*R. C. Nauth-Misir
W. A. Openshaw
T. M. Owen
*J. B. Parsons
*G. F. M. Pierce
J. K. Price
*I. Rocker
H. N. St. John
J. A. J. Smith
*L. Tann
*M. G. Thompson
*P. A. Van der Merwe
*C. B. Vaughan
C. N. Watson
*W. N. Whamond

MIDWIFERY

J. H. Bailey
G. A. E. Baker
J. A. C. Bamford
T. G. L. Bellis
T. K. H. Boenheim
A. J. Bridge
A. C. Campbell
D. J. Cliffe
R. D. P. Druitt
J. C. Gazet
J. W. Goodfellow
H. V. Hoyle
J. Hurst
W. V. James
J. C. Jelleyman
J. C. C. Kendall
P. J. Koblenzer
*M. Lewis
W. G. Lewis
E. J. Masters
J. M. Medlock
P. O'Gorman
W. A. Openshaw
A. R. Phillips
D. W. L. Phillips
W. J. Pryn
P. J. Rademan
G. C. Saint
M. A. Sorefan
D. J. Stoker
J. M. Stoner
E. P. W. Tatford
T. G. Thomas
W. M. E. Tweed
A. A. Waterman
C. N. Watson
R. A. J. Webb
L. Wollner
J. F. Woodford

*have completed the examination.

APPOINTMENTS VACANT

Guy's Hospital and Medical School.

Applications are invited for the following appointments to the Junior Staff as from 1st October, 1950 :—

Junior Lecturer in the Anatomy Department (whole-time) .. .. .. (4)
Junior Lecturer in the Anatomy Department (part-time) .. .. .. (1)
Junior Lecturer in the Department of Morbid Anatomy and Histology .. (1)
Junior Lecturer in the Bacteriology Department .. .. .. (2)
Junior Lecturer in the Chemical Pathology Department .. .. .. (2)
Junior Lecturer in the Physiology Department .. .. .. (1)
Chief Assistant in the Department of Clinical Pathology .. .. (1)
Assistant Clinical Pathologist .. .. (3)
Hæmatological Registrar .. .. (1)
Junior Assistant to the Director of the Department of Medicine .. .. (1)
Medical Registrars .. .. .. (3)
Junior Medical Registrars .. .. (3)
Tutor in charge of the Preliminary Period Clinical Class .. .. (1)
Casualty Surgeon .. .. .. (1)
Junior Assistant to the Director of the Department of Surgery .. .. (1)
Surgical Registrar .. .. .. (1)
Genito-Urinary Registrar .. .. (1)
Orthopædic Registrar (whole-time) .. (1)
Orthopædic Registrar (5 sessions per week) .. .. (1)
Thoracic Registrar .. .. .. (1)
Chief Assistant in the Department of Psychological Medicine .. .. .. (1)
Registrar (whole-time) ditto .. (1)
Registrar (5 sessions per week) ditto .. (5)
Assistant Director to V.D. Department (1)
Medical Officers to V.D. Department .. (3)
Registrar to Physiotherapy Department (6 sessions per week) .. .. (1)
Senior Registrar to the Radiotherapy Department .. .. .. (1)
Chief Assistant in the Department of Anæsthetics .. .. (1)
Anæsthetic Registrar .. .. .. (1)
Obstetric Registrar .. .. .. (2)
Ophthalmic Registrar (2 sessions per week) .. .. (3)
Dermatological Registrar (whole-time) (1)
Dermatological Registrar (7 sessions per week) .. .. (1)
Assistant in the Department of Diagnostic Radiology .. .. .. (1)
Registrar in the Department of Diagnostic Radiology .. .. .. (1)
Pædiatric Registrar .. .. .. (1)
Chief Assistant in the Neurological Department .. .. .. (1)
Neurological Registrar .. .. (1)
Chief Assistant in the E.N.T. Department .. .. (1)
E.N.T. Registrar (5 sessions per week) (1)
E.N.T. Registrar (2 sessions at Guy's, 2 sessions at Orpington p.w.) .. (1)
Registrar to Evelina Hospital .. .. (1)
Registrar to E.N.T. Department (Evelina Hospital) (2 sessions p.w.) (1)
Assistant to the Director of the Student Health Service .. .. .. (1)
Assistant to the Director of the Pædiatric Department .. .. .. (1)
Assistant to the Director of York Clinic (1)
Assistant to the Director of the Department of Clinical Pathology .. .. (1)

Forms of application for these appointments are obtainable from the Dean, Guy's Hospital Medical School and should be lodged in the Medical School Office *not later than 31st May*, 1950.

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence duties on 1st October, 1950 :—

Full-time Head of the Department of Preventive Dentistry—salary within the range of £1,250 plus £100 to £1,750 per annum plus superannuation and family allowances.

Full-time Assistant in the Dental Department for Children—salary within the range of £900 plus £100 to £1,100 per annum plus superannuation and family allowances.

The salaries of the successful candidates will be fixed according to qualifications and experience.

Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London S.E.1., to whom applications should be sent not later than 31st May, 1950.

LECTURE

A lecture of unusual forensic interest will take place on Monday, 22nd May, 1950, at 4 p.m. in the Physiology Theatre when Sir Sidney Smith, C.B.E., M.D., Regius Professor of Forensic Medicine in the University of Edinburgh will talk to senior students on "Reconstruction in Cases of Crime." Accommodation will be reserved only for the members of the current class in Forensic Medicine.

DENTAL ALUMNI

It is proposed to hold a Lunch for Alumni of Guy's Hospital Dental School during the Annual Meeting of the British Dental Association at Birmingham. Will any old Guy's men wishing to be present please notify Mr. R. F. Pusey of 51 Calthorpe Road, Edgbaston, Birmingham 15, in the near future stating the year they were at Guy's, in order that seating and catering arrangements may be put in hand.

CHANGES OF ADDRESS

L.C. Bellsham-Revell, M.B.E., M.R.C.S., L.D.S., Dental Centre, Unilever House, E.C.4. and 14 High View Road, Sidcup, Kent. (Tel. FOO 2466).

D. G. May, M.B., B.S., 24 Lovelace Gardens, Surbiton, Surrey. (Tel ELMbridge 2767).

L. G. Scott, M.B., M.R.C.P. Trencrom, 17 Southcourt Avenue, Bexhill-on-Sea. (Tel. 2583).

BIRTHS

GILL.—On April 30th, 1950, at Mount Alvernia, Godalming, to Aileen, wife of W. G. Gill—a son.

SHARP.—On April 25th, 1950, at Purley Hospital to Hilda (née Palmer) wife of G. E. Sharp—a brother for Christopher and John (Charles Richard).

DEATHS

HAYTON-WILLIAMS.— At Liverpool on May 2nd, 1950, Ronald John Gwynne Hayton-Williams L.D.S., R.C.S.(Eng.), aged 38 years.

MOTHERSOLE.—On May 12th, 1950, at his residence 33 Fourth Avenue, Bolton, Robert Devereux Mothersole, M.D., F.R.C.S., M.S., in his 85th year, the dearly loved husband of Susan Mothersole.

SALT.—On May 1st, 1950, Harold Osbert Salt, L.D.S., devoted husband of Frances Eleanor (née Blake) Lock Gates, Tamworth Road, Lichfield, Staffs.

WEBB.—On May 7th, 1950, Violet Maud Ann Webb (Out-Patients Enquiry Officer). A valued servant of Guy's 1904-1932, aged 75 years.

EDS. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1614 *3rd June, 1950* *Ninepence*

PASSIM

A LETTER from Mr. Stanley Meacock on another page of this issue prompts editorial comment. He stresses the relationship between soil fertility and the health of the community at large. Admittedly within the confines of four short paragraphs adequate exposition is impossible. Nevertheless, he has implied certain conclusions without, we feel, preferring adequate evidence in support of his contentions.

Ignorance so readily begets nonsense. While medicine remained exclusively an art, inspired by superstition and elaborated by speculation, the treatment of disease involved little more than the practice of magic with encouragement by faith. The newt's eye and the frog's toe had potentialities all their own, and "a fatte piece of veale" was endowed with the most fantastic properties. In time, wishful thinking gave way to reason. An understanding of bodily structure and function, together with an appreciation of the processes of disease, allowed therapy to assume a logical basis and its effectiveness to be judged according to results. As yet, the physician "sees through a glass darkly"; his art, therefore, is essential to the fulfilment of his science.

Over the past hundred years, the study of soil conditions and plant growth has advanced in a very similar manner to that of medicine. A sound body of fact has been recorded, but this represents no more than a fraction of the whole. The importance of soil water in plant nutrition, its replenishment and drainage, has become more widely recognised. Nitrogen, phosphate and potash have been demonstrated as the three principal plant foods and the rôle of the trace elements has been revealed. The part played by the bacterial flora in the maintenance of fertility has been established. Above all, the organic composition of the soil and the way in which it is responsible for physical structure has received the closest attention.

The wise farmer neglects none of the scientific principles which have been proved. But he is never satisfied with them alone. His experience and even his intuition dictate modifications and supplementary measures as the occasion demands.

Where we join issue with Mr. Meacock is in contesting those extravagant assertions to which he and his associates are disposed when referring to those aspects of soil fertility in which the scientific components are not yet clearly delineated. Thus, the late Sir Albert Howard could write in 1944, "as chemical manures in this country have replaced the muck, the tale of animal diseases has increased," and our correspondent today can refer to "more and better chemical fertilisers . . . . used to grow more crops of less virile and disease-resisting nature year by year." Never do they advance so much as a single conclusive argument as to the manner in which the health of plants, animals and human beings can be linked together. Instead, there is a worship of nature that becomes almost a fetish and the performance of tillage rites which are of no more consequence than the complicated prescriptions of the early

physicians. "All farming is essentially an interference with nature." It is unfortunate that in their regard for the primitive, these disciples of Howard should be so ready to quote China and India, of whose two peoples it has been said they are "probably the most wretched, diseased, short-lived and poorest of any upon earth."

The fact is that successful crop-production, at least in Britain today, depends upon the judicious employment of chemical fertilisers, just as much as it does upon organic manures and enlightened methods of soil cultivation. Yields are thereby increased and, so far as available evidence can show, the quality of the products is in no way impaired. To convince thinking folk otherwise will require more than the "prodigiously thin-spun webs of argument" of the Howard school of thought or the wild and inexplicit pronouncements of our present correspondent.

With the terms and spirit of another letter published in this *Gazette* no one at all is likely to disagree. Mr. J. H. Winston, whose resignation from the post of secretary to the Medical School was briefly announced two weeks ago, has done yeoman service over many years. Guy's men realize that his past efforts have been widely appreciated. What they will also be pleased to learn is that his association with them has not come to an end. His valuable gifts will find adequate scope in the new position in which he has been installed, that of Appointments Officer to the Medical School.

With deep regret we record the death, under tragic circumstances, at the Brompton Hospital on 27th May last, of Gerald Dalton Channell, F.R.C.S. A native of Natal, S.A., he qualified at Guy's in 1936, served during the recent war as Lieutenant-Commander in the R.N.V.R., being mentioned in despatches, was afterwards assistant lecturer in anatomy in the Medical School and, at the same time, honorary secretary to the Clubs' Union. More recently he was surgical registrar at the Brompton Hospital.

The funeral was held at Old Knebworth on 31st May and the memorial service in the Brompton Hospital chapel on 1st June.

ACADEMIC

June		
		Exhibition. Surgical Department. "Thyroid Surgery."
5th.	1.00.	Dr. McArdle. Clinical Lecture.
6th.	12.00.	Mr. G. B. Pritchard. Dental Clinical Lecture. "Toothache and Neuralgia—The Diagnosis." Dental Theatre.
	1.00.	Mr. Blackburn. Clinical Lecture. "Abdominal Pain and Vomiting."
8th.	1.00.	Mr. Massie. Clinical Lecture. "Fractures of the Elbow in Childhood."
	4.30.	X-ray Meeting. Gordon Museum.
9th.	1.00.	Dr. Hardwick. Clinical Lecture. "Cirrhosis of the Liver."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
10th.	10.00.	Mr. R. S. Corbett, St. Bartholomew's Hospital. Surgical Departmental Round. Clinical Theatre.
12th.	1.00.	Mr. Stamm. Clinical Lecture.
13th.	1.00.	Dr. Kauntze. Clinical Lecture. "Painless Jaundice."
14th.	4.45.	Annual General Meeting of the Guy's Science Club. Staff Common Room. (Tea 4.30.)
15th.	1.00.	Mr. Willmore. Clinical Lecture. "Organic and Functional Disorders of Speech."
	4.30.	X-ray Meeting. Gordon Museum.
16th.	1.00.	Dr. Douthwaite. Clinical Lecture. "Cholecystitis."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
19th.	1.00.	Dr. Hills. Clinical Lecture.

SPORT

10th.	2.30.	Cricket. 1st XI *v.* Lensbury. (H.O.P.)
	2.30.	Cricket. 2nd XI *v.* Lensbury. (Away.)
11th.	2.30.	Cricket. XI *v.* Finchley. (Away.)
17th.	2.30.	Cricket. 1st XI *v.* Kenley. (Away.)
	2.30.	Cricket. 2nd XI *v.* Kenley. (H.O.P.)

Congenital Deformities

By NILS L. ECKHOFF, M.S., F.R.C.S.

A Clinical Lecture delivered at Guy's Hospital Medical School on 23rd March, 1950.

LADIES AND GENTLEMEN.—Congenital anomalies are difficult to classify. They are usually found scattered about in the average surgical textbook, and often receive but scant attention. I will endeavour, so far as it is possible in this lecture, to describe some of the commoner varieties that come to us for help, and indicate briefly the principles of treatment; illustrating my remarks with photographs.

Cleft Lip and Palate

These two conditions must be considered together, as they are part of one deformity. The cleft is usually said to be due to failure of fusion of the median nasal process with the lateral nasal and maxillary processes, and whereas this description may suffice to explain the lip deformity, it must be remembered that the major part of the palate is derived from the maxillary processes alone.

There has been some discussion recently concerning the exact derivation of the central part of the lip. From the practical point of view, in double cleft lips, when the premaxilla stands out in front carrying the prolabium (consisting of skin, vermilion border, but no muscular tissue) it is tempting to use the vermilion in the lip repair. If this is done, the shortening between the lip margin and the tip of the nose is more than ever accentuated. Without entering into the subject of embryology in attempting to explain how this deformity comes about, it will be sufficient to observe that in all these cases there is marked deficiency of tissue, and it is this which creates the chief problem of repair.

Cleft lip and palate deformities may be of any degree, from a simple notch of the lip or uvula, to the complete bilateral cleft above mentioned. Furthermore all sorts of odd combinations can be found, such as a cleft of the lip and soft palate; or a cleft of the lip and alveolus but normal palate. It is therefore not very satisfactory to talk of types of cleft, but rather to talk of degrees of cleft, and to annotate each case according to the condition of the lip, alveolus and palate thus :—

1/3, 2/3 or 3/3 prealveolar cleft
alveolar cleft
1/3, 2/3 or 3/3 post alveolar cleft.

The only general observation is that partial lip clefts must often first be converted into total lip clefts in order to bring the muscle bundle together, and to give one an opportunity of repositioning the nose.

Lip repair should not be attempted till the child is three months old, 10 lbs. in weight and gaining. Thus it is usually possible to exclude those few cases that die of inanition, and to discover whether there are other congenital constitutional defects. The presence of one congenital defect should stimulate the doctor to look for others, for they tend to go together. The familial tendency in cleft lip and palate is well known. A highly arched palate or absent or diminutive lateral incisors, are often seen in one or other parent.

It is seldom that these babies fail to thrive (on spoon feeding) even with the widest palatal cleft. At one time attempts were made to fit infants with rubber obturators, but this practice is now discontinued, as the child seemed to waste its efforts on chewing the obturator. I was recently asked to operate on an infant 7 days old because of feeding difficulties. On examination there was a wide palate cleft, but there was also an extremely dimunitive mandible, and the mere stump of a tongue, with such lack of development of the oro-pharyngeal musculature that the tongue dropped right back over the aditus to the larynx, like a trap door, and very nearly suffocated the child. This child was nursed most diligently in an oxygen tent by the staff of the Children's Ward for about three months, until the jaw and tongue development improved.

At the age of ten months the weight was 21 lbs. and the child was disgustingly fat. The mother was still concerned about its feeding.

The lip then is usually repaired when the child weighs about 10-12 lbs. There is no purpose in discussing the many dozens of operations that have been devised and practised. Some surgeons are content to bring the lip together by some simple method and so produce a straight vertical suture line. In plastic surgery a vertical suture line is avoided wherever possible and we prefer to finish with a zig-zag line, by designing a simple flap on the lateral side of the cleft. If this flap is too complicated, the musculature may be seriously damaged. The method I use at the moment is commonly called the Mirault-Blair procedure as modified by Barrett-Brown and McDowell. Another method which gives good results was recently described by Le Mesurier.

With wide undermining, mostly on the cleft side, we have no anxiety about closing the cleft. The repair is in three layers, with particular attention to the muscular layer. The fine skin sutures are removed by the fourth day, and we rarely have to use Logan's traction bow. But I must confess a considerable disquiet concerning the alar flare, which is such a marked feature even in partial lip clefts. The cartilage is freed from the overlying skin, in an endeavour to allow it to occupy its correct place, but it is still difficult to achieve the desired result.

Double lip clefts are usually handled by doing one side at a time, but not incorporating any part of the vermilion border of the prolabium in the new border. It can be used to deepen the labial sulcus if desired. Apart from the lack of distance between the vermilion and nasal tip (which can to some extent be increased at a later operation), the forwardly protruding premaxilla presents another problem. It has been said that it is wrong to attempt to reduce this at the time of the operation on the lip cleft, and it is remarkable how the sutured lip will bring it back into place, but recently it has been shown that, by removing a suitable portion of the septum, allowing the premaxilla to sink back, the recession of the nasal tip is considerably improved. (Huffman and Lierle).

Typical Bilateral Complete Cleft with early result.

The anterior part of the palate should be closed at the first operation. This can be achieved simply by turning a flap from the septum, to unite with the cut edge of the palate cleft. It does not seem essential to cover the raw surface with a palatal flap, as used to be practised (Veau). The raw surface is rapidly epithelialised (Dorrance).

By these methods a complete palatal cleft can be converted into 2/3 post alveolar cleft. At about 18 months (avoiding if possible the winter season) the remaining cleft can be closed. This is usually accomplished by an operation

accredited to Wardill. The principle is that of V-Y advancement as used in plastic surgery. The operation of Langenbeck still figures in many of the text books, but has the great disadvantage that a raw surface is left on the nasal aspect. In the modern operation, great attention is paid to the accurate closure of the nasal mucosa. The slides show how this is accomplished. A large V-shaped palatal flap is elevated (on each side). When the posterior edge of the hard palate is reached the attachment of the soft palate is divided, and a suitable shaped instrument elevates the mucosa on the nasal aspect, working laterally towards the hamulus which is fractured, up along the lateral nasal wall, and later medially towards the cleft. Thus the nasal skeleton is "filleted," and the nasal (and palatal) mucosa is able to swing in towards the midline, and backwards, where it is sutured. Suitable adjustment of sutures secures this postero-medial displacement which is essential for proper closure of the oropharyngeal sphincter, and satisfactory function in relation to speech. Since there is no tension on the sutures, perfect healing is to be expected.

Hypospadias

The next congenital deformity of which I wish to speak is hypospadias. Again I will dispense with embryological considerations. These can be studied in the text books. Hypospadias also varies in degree, so that we recognise glandular, penile, peno-scrotal, scrotal and complete degrees. Even in the mildest varieties, some degree of ventral curvature is to be expected, and a generous hood of preputial skin is to be found. Circumcision is strongly deprecated, for most methods of repair (of which there are legion) make use of this freely available skin. Most authorities recognise the necessity of correcting the ventral curvature, which can be done by a fairly simple plastic operation. The provision of a new urethra is not so simple. Some use a tube pedicle of the preputial skin (Levi, Davis), some a free graft (McIndoe) but there is always the problem of joining the new urethra to the existing channel, a procedure often fraught with difficulty. Ombredanne avoided this by turning forwards a flap on the ventral surface and bringing the dorsal skin over as a cover. Denis Browne does not attempt to create a tube but merely leaves a strip of skin, which he covers by ample undermining, on each side, making a free dorsal incision to relieve tension. Good results seem to follow this simple procedure, at least in children. In adults, healing is more difficult to achieve.

Epispadias

Epispadias is a condition (difficult to understand embryologically) in which the urethra runs along the dorsal aspect of the penis, and is open in greater or lesser degree. In some the defect is purely penile and in some there is in addition lack of function of the sphincter, whilst in the more severe degrees the defect in the urethra is co-existent with a deficiency of the pubis, and the bladder is open on the surface (ectopia vesicæ). In the lesser degrees it is sometimes possible to repair the urethral defect, but in the most severe cases it is necessary to divert the urinary stream by implantation of the ureters into the colon, after which the bladder defect can be closed, as in the case illustrated.

Imperforate Anus

The mildest cases are those of a pinhole opening—often on the top of a papilla. The pinhole opening may be difficult to find, but when found may (according to Denis Browne) be dilated up to functional size.

In some a thin membrane separates the anus from the rectum, which may readily be overcome by a simple operation at birth, trying if possible to avoid a circular scar. In the next variety the distance between the anal dimple and the rectal stump may be from one inch to several inches. The only method of determining this fact shortly after birth is by placing a lead shot in the anus, and taking an X-ray picture with the child inverted, when the colonic gas will outline the rectal stump. If the distance is appreciable no form of repair is likely to be effective—at least at an early age—and a colostomy will be required. It is important to notice that a communication may exist

between the rectum and the urethra—in males—and between the rectum and the lower part of the vagina in females. In fact it is quite remarkable that the atter deformity may remain unrecognised, and the patient be brought up at the age of 6 or 7, with a small rectovaginal fistula, and an enormously dilated colon. Denis Browne (in a recent Hunterian lecture at the Royal College of Surgeons) objects to any attempt at restoring the normal anatomy, but to others this appears the right thing to do, and there is in the ward at the moment one of our cases—a little girl in whom we have achieved this happy result.

Intestinal Atresias

Atresias can occur at other parts of the intestinal canal. Without considering hypertrophic pyloric stenosis (the symptomatology and treatment of which is no doubt well known to you) genuine atresias occur (i) in the œsophagus, (ii) in the duodenum, (iii) in the small intestine and (iv) in the colon.

Œsophageal atresias, sometimes associated with tracheo-œsophageal fistulæ, have frequently been cured by surgery in the first few days of life, but this work is usually done in special clinics. Cases of duodenal atresia appear in our clinics from time to time, and I am able to show you pictures of one, treated about a year ago by gastroenterostomy on the fifth day. The condition is easily diagnosed (if suspected) by straight X-ray. The stomach and the first part of the duodenum is outlined with air—the rest of the abdomen showing no gas. In a normal baby gas is found throughout the intestine within two or three days of birth.

A rather similar X-ray picture was recently presented by a baby (born in Victoria) who was found at operation to have volvulus of the mid gut (from the duodenum to the transverse colon), but in this case the gas also filled the third part of the duodenum. In addition to the usual symptoms of vomiting, blood was passed per rectum on the 5th day. This was due to the intense engorgement of the intestine, leading almost to gangrene. The child has survived the operation to undo the twist, for six weeks, and is now beginning to gain weight. Improper rotation of the intestine may produce an extremely complicated surgical problem, and is sometimes almost impossible to unravel in an emergency.

Atresias of the colon may not declare themselves so early, for vomiting will not be immediate. Operative repair is likely to be fraught with greater dangers.

Congenital Absence of the Vagina

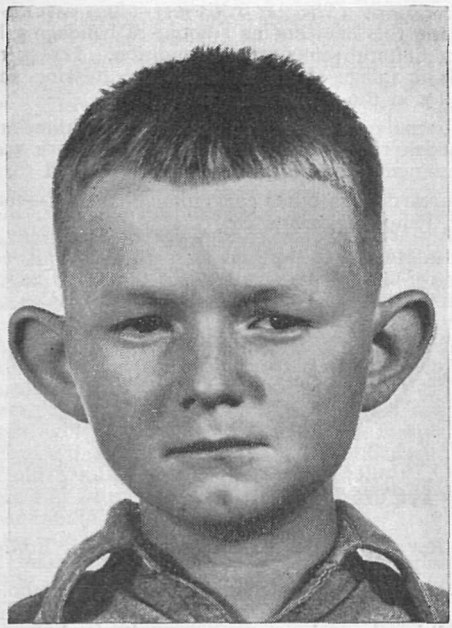
This is another distressing condition. In many cases the ovarian function is suppressed and the patients may reach adult life without inconvenience. In others the condition is discovered at puberty owing to the development of hæmatocolpos.

McIndoe has devised an ingenious operation applying the principle of the epithelial inlay, wherein a space is dissected up in front of the rectum, and a graft, applied to a mould, inserted in the cavity so prepared. The mould must be retained for about six months, when a cavity of proper dimensions will remain. Operations depending upon skin flaps or the use of pieces of intestine are dangerous, and difficult to bring to a successful conclusion.

Syndactyly

Syndactyly—fusion of digits—is not at all uncommon. There is a strong familial tendency, and fusion of the toes may often be seen in addition.

In the mildest cases a web exists between the fingers, which can be divided and repaired by some zig-zag procedure. In the more usual type of case the fingers are close together, and there may be fusion of phalanges. An X-ray is therefore required in the first instance. In these cases there is seldom enough skin to cover the fingers when separated. A glance at a hand-made glove will make clear the complexity of the space between the fingers, and the size of the surface area. Free grafting will be necessary—but free grafts have a



Bat Ears with result

tendency to contract. It is therefore desirable to fashion a dorsal V-shaped flap with the apex opposite the first interphalangeal joint, which will later form the top of the cleft, and place a free graft on a stent mould to cover the rest of the raw area. In this condition longitudinal incisions cannot be avoided at the first operation, but if any contracture occurs later, some secondary plastic may be required.

Other Hand Deformities

There is a variety of other hand deformities that may occur. Reduplication of the thumb, or of the little finger is not uncommon, and is dealt with quite easily by removal. Absence of the thumb or digits presents an intriguing problem. It is remarkable how children will adapt themselves to such losses. In the case of absent digits, it is doubtful if surgery has a place. In the case of an absent thumb, the loss can be made good by (i) transplantation of a toe, (ii) pollicisation of the index, (iii) deepening the intermetacarpal space. Each case will have to be considered on its merits, but if the child has learnt to use the hand well, further surgery may not be indicated.

Lobster or claw hand is another not uncommon deformity, often with a strong family history. Function may be remarkably good, and interference of doubtful value. Local gigantism (of one or more digits) may occur, and may require trimming or partial amputation.

Various combinations of the above mentioned deformities may occur for which little can be done.

Bat Ears—Flyaway Ears

Undue prominence of the pinna may cause a child (especially if male) to have a miserable existence. On close examination it is usually found that

the antihelix is improperly developed. The ear will very often assume a reasonable position if folded along this line, but no amount of bandaging by the mother will make any permanent improvement in the condition. It requires an adequate incision into this cartilage (from behind), the missing fold being created by eversion stitches in the perichondrium.

In the worst examples the upper part of the ear droops in addition, and in these it is particularly important to see that the fossa triangularis is well formed during the repair. Prominent ears are quite definitely familial.

On another occasion I hope to discuss other congenital blemishes—such as angeiomata, pigmented nævi, lymphangiomata, etc.

REFERENCES :

Davis, D. M. (1944) *Jour. Urol.*, 52, 4.
Dorrance, G. M. and Bransfield, J. W. (1946) *Plastic and Reconstr. Surg.*, 1, 145.
Huffman, W. C. and Lierle, D. M. (1949) *Plastic and Reconstr. Surg.*, 4, 489.
Levi, D. (1940) *Lancet*, 2, 777.
Le Mesurier, A. B. (1949) *Plastic and Reconstr. Surg.*, 4, 1.
McIndoe, A. H. (1937) *Amer. Jour. Surg.*, 38, 1.
McIndoe, A. H. and Bright Banister, J. (1938) *Jour. Obstet. and Gynecol.*, 45, 3.
Veau, V. *Division Palatine : Masson et Cie.*
Wardill, W. E. M. (1937) *Brit. Jour. Surg.*, 25, 97.

Reviews

Green's Manual of Pathology. Revised by H. W. C. VINES. 17th Edition Bailliére, Tindall & Cox. *Price* 42*s*.

The author's suggestion in his preface that the changing outlook of pathologists will soon lead to a new type of text-book with a broader purview is welcome. Still on conventional lines, this edition shows improvements on its predecessors both in text and illustrations. While a discussion of causation should logically preceed description, the arrangement of chapters which leads to mention of gout and cholera before consideration of the acute inflammatory process appears ill-balanced. In the discussion of tuberculosis, and in some other sections, an excellent description of details is marred by failure to emphasise the natural development of the disease process. Exception may also be taken to certain statements about the development of malignancy in benign tumours. Nevertheless the book is readable and the student should find it at least as useful as most current text-books of pathology.

J.O.L.

Aids to Public Health. By LLYWELYN ROBERTS. Bailliére, Tindall & Cox. *Price* 6*s*. 6*d*.

The latest edition of Dr. Llywelyn Roberts' useful little book on Public Health is enlarged by a most welcome addition of sections on ; the " Health Service "; " The Case of the Aged," and social care in general.

The chapter on " The School Child," has also been made bigger to keep pace with recent legislation.

No M.B. student should be without this book.

Pye's Surgical Handicraft. By HAMILTON BAILEY. 16th Edition. Wright. *Price* 25*s*.

Over the sixty odd years of its existence the reputation of " Pye " has become firmly established and this latest edition well maintains the previous standards. Because of illness Mr. Hamilton Bailey has had the help of Mr. J. R. Elden in the editorship, while two Americans have joined the ranks of the contributors.

Of course this book is not complete ; no work on the subject could be. Moreover, the advice given on the various topics may not always accord with the views of one's chief. Nevertheless, the text provides a mass of useful information, particularly of those aspects with which one scarcely becomes acquainted as a student. For the houseman, then, this book is invaluable—it helps him in so many practical difficulties which he may never before have encountered.

The Rite of Circumcision

By H. St. H. Vertue

THE aged duchess laid the infant across her lap and regarded it with thoughtfulness. "A fine child, a fine child," she murmured, "and if my memory is not misleading me, it is a boy." That distinguishing feature of the male child is not viewed with approval by many human beings: they want to lop off the tip of it. They like also to lop large trees or even cut them down, and as a large tree is the home of the oak-god, thunder-god and sky-god, I suspect that their motives are much the same in both cases, although they themselves would certainly dismiss such as idea. As they are unaware of these motives that prompt such peculiar wishes, they have to invent reasons for gratifying them which will seem sufficiently good. The usual one for circumcision put forward just now is this, that it ought to be possible to pull the prepuce back over the glans in an infant, and as a matter of fact usually it is not. The anxious question is then asked, "Ought not the child to be circumcised?" To entertain such a query is to fly flat in the face of nature. If this essential organ of generation were really, so to speak, so badly designed that it needed drastic refashioning, the slowly breeding human race would have passed out long ago, or else have been differently fashioned. Our answer, then, will be in almost all cases "No," but our curiosity will prompt us to enquire what the real motive is that underlies the question. It was a sentiment of old Samuel Johnson that a man who writes thinks himself wiser than the rest and supposes that he can instruct and amuse them. I cannot suppose that I should amuse or instruct any of the large number of women in the hospital who will never have to answer this question, nor those who dislike any free discussion of religious matters. The tradition in which I grew up was that of William Sewell, bland, tolerent, genial, broad-minded, religious, platonic, classic, of the Renaissance. It did not endanger any nervousness on such subjects. Circumcision is a religious rite, which must be examined against a historical background. To those who disagree I say farewell.

In ancient Phrygia there was a deity called Agdistis, who had both kinds of sex; but one day she struck off the male parts, thereby limiting herself to the female. From the severed members there sprang up an almond-tree, which in due time bore flowers and fruit. Nana, the Phrygian shepherdess, came upon the young tree and swallowed an almond, whereupon she conceived and brought forth a boy of singular beauty, who was called Attis. While he was still but a stripling, Cybele, the Phrygian mother-goddess, became enamoured of Attis and desired to possess him for herself. Therefore she sent a madness upon him that drove him to castrate himself. The result was fatal, for Attis bled to death. But the soul of Attis flew into a young pine tree, and from his blood-drops violets sprang up. Every year at the vernal equinox a young pine wreathed in violets was brought into the sanctuary of Cybele. An image of Attis was detached from it and put into a tomb and the god was said to have died. On the fourth day the priest opened the tomb and declared that he was alive again. Then there were carnivals and processions, merry-making and general rejoicing. Attis was clearly the familiar god of vegetation, who was annually slain and reborn, but he was something as well which is more significant today than that. Into this we must now enquire.

Cybele, the mother-goddess, dwelt on mount Ida, which was clothed in dark forests, the haunt of wild beasts, lions among them, whom she tamed and yoked to her chariot. On her head she wore a mural crown, the sign that she protected her people. From time to time the priests would put her image in a wagon and draw it through the streets. Superstitious fear seized the hearts and minds of the crowd, who strewed the way with gold and silver and snowed the image with flowers. Accompanying the procession was a band called the Curetes, leaping in the air, shaking crests on their heads, and gashing themselves with knives. The cries of these ecstatic worshippers were accompanied by the shrill music of the Phrygian flute, by the clashing of cymbals, the thunder of drums and the harsh braying of horses. Along with them went the *galli*, or eunuch-priests. At the time of the spring festival the madness that the mother-goddess sent upon Attis visited her devotees also, who in a frenzy of religious excitement would cut off their testicles and

throw them at the foot of the goddess' statue. A special bronze instrument was used. The penis was encircled by a loop at the top, so as to be out of harm's way, two limbs fastened tightly with a clamp crushed the scrotum below so as to arrest hæmorrhage, and then a knife parted the devotee from his virility for good. Ever afterwards, as the waiting woman of Cybele, he wore female clothes and was adorned with female ornaments. Remorse must often have seized him when he woke from the fit. " Shall I now be a ministress and female slave of Cybele ? Shall I now be a wild one, I a remnant of myself, a man unfruitful ? Shall I dwell on the chill green slopes of snow-clad Ida ? Waste my life beneath the Phrygian heights, where the stag haunts the forests and the wild boar roves the woods ? Woe, woe, for the deed I did, and shame be upon me ! " (Catullus).

A modest knowledge of twentieth century psychology provides all that is necessary to understand this savage form of religion. From an excessive adoration of his mother or from an infatuation of her with himself the boy is scared away by the apparition of the father, stern, menacing, primitive. A fearful sense of guilt pervades him so that he dreads retaliation. He fears, at the worst, that his jealous and revengeful sire will mutilate him. In a civilized country such as ours these feelings of guilt and fear are disguised even from the victims themselves, but in the half-barbarous inhabitants of ancient Phrygia, they were only just below the surface ready to burst with volcanic activity when the stimulus arrived. The voluntary castration was an act of self-punishment, which atoned for guilt and diverted the father's wrath from a rival now made harmless. The assumption of female garb assured that rivalry was now not only not possible but not even desired : it completed the dramatic representation. Whatever the practices in Phrygian life on upbringing may have been that led to this prevailent feeling we cannot now know, but it is likely that they had a bad effect. At the time of the Trojan war the Phrygians were still doughty warriors, but in historic times the Greeks looked down upon them as a rather slavish people. The probable course of events is that an aboriginal Asiatic stock was conquered by European invaders, who in time died out or degenerated, leaving a servile race behind. Similar horrid rites existed elsewhere in Asia Minor, at certain shrines of the Syrian Astarte and at Ephesus, where the native goddess was somewhat inappropriately called Artemis by the Greeks. On the other hand the Aegeans, a European race, who also worshipped a great Mother, left behind no trace whatever of such practices but seem to have been vigorous, courageous and healthy-minded. The reason is to be found in their very high artistic ability, which gave them a means of sublimating their passion for the female principle.

In the same continent, but far to the South, another race had evolved for itself a directly opposite conception of the cosmic drama, seeing but a single player therein and that one masculine, had pursued its way with greater success than the Phrygians, and had left a lasting mark upon the world. This was the Hebrew race, known best by the name of a single tribe, the Jews. It is the way of man to make this globe, upon which his sustenance depends, wherever he goes less habitable. He cuts down the trees, leaving the winds to blow and the rains to wash away the fertile soil that nothing can replace, save more trees ; and he sets his animals to graze down the vegetation in dry lands, or at a later stage, ploughs them up, until soil and vegetation alike have gone for good. The struggle for existence became acute in the hot dry country south of Palestine where dwelt the roaming pastoral people with their flocks, whose life is so graphically described in the book of Genesis. As the oaks and terebinths receded to the north and the grass faded beneath their feet and the wells and watercourses became ever more depleted, they fought their way northwards into Canaan, where the soil was thicker and the rainfall higher. How they fought—not only against the aborigines, but against one another, Israelite against Moabite and Midianite and Amalekite, all for a share in this little strip of land ! At first they were polytheists, though always with a strong bias towards the masculine, but their unending struggles, their repeated subjections and their sufferings at the hands of powerful neighbours led them in the end to put their trust in one supreme, all-powerful god, the Jehovah of the Old Testament. He seems to have been originally a god of winds, storms and thunder, identified with the god that dwelt on Sinia, when that volcano was

active. The Hebrew became a more righteous person than his neighbours, for the rule of the father is the rule of the law. He desired to be and—except in certain matters of business—he was a very moral man. The Jew above all things loved the law. In loftiness of religious thought and religious feeling he stood unsurpassed. But there were drawbacks. Job was never a happy man. He might accumulate vast wealth as an insurance of earthly security against the vengeance of that all-seeing eye, but still it looked relentlessly down, prying into every deal and every thought; and if he did but turn his mind to the secrets of the Universe, the awful voice would stun him into submission with sublime rodomontade about wild asses, crocodiles and hippopotami. The contemplation of the father exclusively, without the ameliorating and softening influence of the mother, leads to an exaggerated perception of the feelings of guilt and fear which are all too readily attached to his image. At the same time a rigid motherism brings an intense intolerance of all other forms of religion, lest the cherished belief be disturbed. There proceeds that terrible defile, the fear of death, the need for salvation, the tortures of the hydropic religious conscience, damnation, persecution, bigotry, the rack, the stake! Thence too, the lack of laughter, gaiety and lightness of heart; thence that half formulated longing for the embrace of female arms that can be so easily found in any hymn book.

So the old Hebrew had to make a sacrifice to placate the father's wrath. In the remote past, if the story of Isaac is any guide, the propitiation first took the form of human sacrifice, but as the people grew in moral stature this piece of savagery was discarded and the rite of circumcision took its place. Fear of the father is fear of what the father can do, and at the deepest level this is fear that the father may castrate his son. Therefore to appease the father a symbolical act of castration was carried out, which consisted in no more than cutting off the foreskin, a piece of flesh that is not indispensible but is truly a part of the sexual apparatus.

Starting from opposite ends, the estimable Hebrew and the disreputable Phrygian races moved into situations that from a chosen point can be seen almost in line. In the one case from motives that were worthy and strong and in the other from those that were degenerate and weak, the two peoples were led into an excess of religious awe or of superstitious fear, with resulting practices that had a recognisable similarity. Herodotus records that the Egyptians and the Ethiopians also practised circumcision as a religious rite; and in the present day the Arabs do so. It is possible therefore that the Israelite did not hit upon the custom themselves but adopted it from their neighbours because it suited them. As for the Greeks and Romans, they had no inclination at all to "circumcidere genitalia." There is a world of scorn in Juvenal's taunt "mox et præputia ponunt," against young converts to Judaism. Horace's contemptuous "curti Judæi" has the same note. The two peoples of classical antiquity matched god with goddess and regarded each with an impartial favour. Inclining to neither sex in preference to the other, but maintaining that faculty for balance and that dislike of excess which were among their most admirable characteristics, they shunned the errors that beset alike the effeminate Phrygian and the unsparingly masculine few. The sky, the sea, the hill, the stream, the grove were peopled for them with beings who were but replicas of themselves on a more magnificent scale. In their view one of the privileges of heaven was a happy exemption from the pressure of a too restrictive conscience, in consequence of which their gods enjoyed just that freedom of behaviour that mortals might not share.

> There might you see the gods in sundrie shapes,
> Committing headdie ryots, incest, rapes;
> Jove slylie stealing from his sister's bed
> To dallie with Idalian Ganimed,
> And for his love Europa bellowing loud
> And tumbling with a Rainbow in a cloud:
> Blood-quaffing Mars heaving the yron net,
> Which limping Vulcan and his Cyclops set:
> Love kindling fire, to burne such townes as Troy,
> Sylvanus weeping for the lovely boy
> That now is turned into a Cypress tree,
> Under whose shade the Wood-gods love to be.
>
> *Marlowe.*

In the face of their gods they took care not to be presumptuous, but they were on good terms with them and were not afraid. As an institution the Græco-Roman system was long ago swept away; yet it has continued to exercise a very valuable influence in softening the asperities of more rigorous creeds.

Religious circumcision still exists; but this is no affair of ours. What we are concerned with is the occasion when a woman shyly and with reluctance, having unwrapped her male infant and disclosed him to view, asks if he needs circumcising. When the defendant organ has been examined and the answer "No" given, together with a few reassuring words, how happily she trips towards the door, smiling and perhaps a little flushed, satisfied that her darling is not to be mutilated! Woman may fear the father, but she does not labour under any delusion that he is going to lop off her testicles, for the best of all reasons; and in consequence she sees no cause for inflicting this peculiar sacrifice on her son. Woman's attitude was tersely summed up by Moses' first wife, Zipporah the Midianite. "Then Zipporah took a sharp stone, and cut off the foreskin of her son, and cast it at his feet, and said, Surely a bloody husband art thou to me." The husband in fact in almost every case is the instigator of the question, "Ought not my son to be circumcised?" He does this because he has a feeling of guilt and is commanded to atone for it, just as Abraham was commanded. Of course we cannot comply with any such request, except in the very uncommon instances where there is a good ground for it. Only one such ground is known to me, and that is the rare condition of phimosis. It occasionally happens that a naturally narrow preputical orifice is almost obliterated on account of swelling of the part brought on by the combined irritation of the napkin and the urine, so that there is actual interference with micturition. As one cannot dispense with the napkin the prepuce has to go; but the need for this operation is very far from common.

It will be of no little interest to see how the design for circumcision has been rationalized. Firstly, there is the reason so frequently offered that in hot climates the prepuce is liable to inflammation; and this is held to be a sufficient explanation of the origin. Having spent three years and more in medical practice during the First German War in hot climates, including among others those of the very countries concerned, I am well aware that there is not a word of truth in this idea. When the fore-part of the penis *is* inflamed, there is as much likelihood of an antecedent event among the "oiseaux" in a hot climate as in a temperate.

Secondly, it is often put forward that syphilis is commoner among the uncircumcised. Mr. V. E. Lloyd and his brother, Mr. N. T. Lloyd, as the result of a research in the venereal department here, were able to contradict this statement. There is no truth in it.

Thirdly, it is said that Jewesses suffer less from cancer of the cervix uteri than Christians and that the absence of the husband's prepuce must be responsible for the difference. Such utter lack of logic is a sure sign of a subconscious motive.

Fourthly, cancer of the penis is said to be more frequent among the uncircumcised. This may be true, but the disease is too rare to justify prophylactic surgery.

Fifthly, it is suggested that the prepuce favours sexual deviation. Whether this is true or not can never be directly discovered, but an indirect answer can be obtained. If the uncircumcised thus adversly were affected, their fertility would be depressed; but I know of no evidence that this is so. The effect of the operation in favouring normal intercourse must be either slight or absent.

Finally, there is this to be said: if circumcision is beneficial to the male animal, why are bulls, boars, rams, tomcats, dogs and stallions not circumcised?

On the rarity of the need for circumcision and on the necessity in the event for early operation Dr. MacKeith has recently expressed his views in his delightful compendium on the nursling, to which I need only subscribe my cordial agreement.

America Re-visited

By Sir HENEAGE OGILVIE, K.B.E., M.D., M.Ch., F.R.C.S.

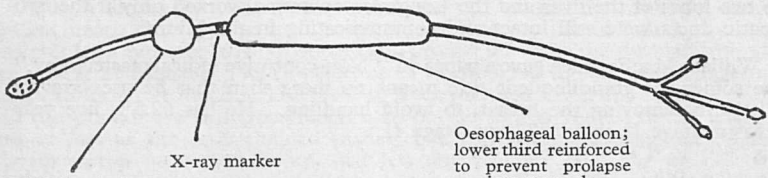
(continued)

Wednesday, 7th

First paper (paper 13) was by Robert S. Sparkman of Dallas, Texas, on laceration of the parotid duct. In Texas the coloured coons slash each other across the face with razors on any pretext and these injuries are common. He had reported a series at another meeting. This was a further series of 12 treated by immediate suture of which 9 had been proved successful and another (too young for sialography) was a probable success. He passes a small catheter through the papilla along the duct and leaves it for a few days. The duct in front of the masseter may be very tortuous, so that a fine catheter cannot be passed : here he uses fine silver wire in place of the catheter and may pass it through the papilla or retrograde from the cut. Good photographs shown. Dr. Rives said he had three times cured a chronic parotid fistula opening on the cheek by the old method of passing a double silk ligature from the sinus through the cheek and lying it inside, thus producing an internal fistula and allowing the external one to close.

Douglass of Nashville next read a paper on ureteral tumours. In a series of about 150 tumours of the urinary tract 7 were in the ureter, mostly papillary carcinomata.

I went out for a breather and to look up old friends, Jimmie Allen, Henry Cave, Frank Lahey, Bill Rienoff and others who drew a nice line between the papers to be heard and those to be followed in the spirit. I came back to a paper by Arthur H. Blakemore of New York on Oesophageal balloon tamponage for the control of hæmorrhage from œsophageal varices. Blakemore is one of the most brilliant younger surgeons and a fine experimentalist, but he is an ardent Halstedian and gives the impression that he would hate to do an operation in an hour if six would do as well, or to do anything simply if a more complicated way can be devised. If I bleed to exsanguination from my œsophageal varices, I hope that some surgeon will rapidly remove my spleen and tie my left gastric pedicle, while someone else rapidly runs in several pints of Group 04 blood supplied by Buttle. Blakemore's balloon which is the result of much careful development, is like this :—



The last paper was a thoughtful contribution by Harry Kerr of Washington, on Biliary tract hæmorrhage as a cause of massive gastro-intestinal bleeding. The paper was too full and statistical to analyse ; it got some of the best men on their feet to discuss it.

The first afternoon paper was on acid burns of the stomach by Ernest Strode of Lexington, Kentucky ; it bore out previous experience that acids affect the pyloric half of the stomach, whereas caustic alkalis attack the lower end of the œsophagus.

Duffy Hancock of Louisville, Kentucky, talked about tuberculus ulcers of the ileum, pointing out that they were lesions of lymphoid tissue and rarely perforated ; he reported a successful suture of a perforation in a seventeen year old girl.

Paper 22 was on " Radical Surgery in Patients with Cancer," by Allen Whipple, a subject that is very much to the fore in America at present and that raises fierce partisanship. This was a splendid balanced paper that only

a man of Whipple's character, experience and high international standing could have given. He discussed chiefly the type of case that is by ordinary standards inoperable and in which severe, heroic, dangerous and often mutilating operations were all that could be put forward. In cancer of the stomach, usually considered to have a very bad prognosis he reported 256 resections with 56 five year survivals (22%) and 24 surviving 10 years or longer (9%). He discussed and supported Alexander Brunschwig's pelvic evisceration for advanced or recurrent cancer of pelvic viscera. Though the operation meant transplanting ureters into a divided colon, giving a " wet " colostomy, these patients had intolerable pain, vesico-rectal fistulæ, or other conditions that made life intolerable. Seven out of 200 of these pelvic eviscerations lived more than a year. There was a great need for psychiatric rehabilitation of the survivors of these terrific operations. In the discussion that followed, Harvey Stone of Baltimore criticised the view put forward in a kindly way that probably expressed the feeling of most listeners. He deprecated surgeons who operate for drama rather than cure, for cancer rather than the patient. Meigs (Boston), favoured pelvic evisceration in stage 4 cervical carcinomas ; he had a mortality of 25% ,and 25% living for more than a year. Coley of New York reported 9 hind-quarter amputations (they call it hemi-pelvectomy) with four surviving patients, one over 37 months. Two are wearing satisfactory artificial limbs : Lahey spoke, advocating total gastrectomy for all gastric cancers.

Samual Marshall, of the Lahey Clinic, spoke of sarcoma of the stomach. They had 41 in 1171 malignant stomach tumours, or 3.7%. The prognosis is better than in carcimona.

Frank Massie of Lexington spoke of the Longmire operation for common duct obstruction. Longmire is a very brilliant young man of about 30 whom I met in Santa Barbara. He is a pupil of Al Blalock and has just been appointed the first holder of the Chair of Surgery in a new University in Los Angeles. His operation is based on the supposition that in common duct obstruction the communications between the bile ducts of the right and left lobes dilate ; he cuts across the left lobe till a large duct is encountered and anastomoses this to a loop of jejunum. Massie's patient, after a brief improvement, had relapsed. Frank Lahey, discussing the paper, said they had proved by repeated injection experiments that there was no communication, vascular or ductal, between the two lobes of the liver and the Longmire operation worked only if the two hepatic ducts were still intact and communicating in the hilum.

William MacFee then gave a paper on " Non-contusive radical mastectomy." The somewhat grandiloquent title means no more than that he uses gravity to help in removing the breast, to avoid handling. He has 62.5% five year cures in Stage I, about 22% in Stage II.

Thursday, 9th.

Three excellent papers, by Kredel of Charleston, on " The repair of myelo-meningocele in the new born," by Lon Grove of Atlanta, on " Congenital atresia of the small intestine," and by Clarence Gardner of Durham, North Carolina, on " The surgical significance of anomalies of intestinal rotation." Kredel was unlucky in that the Association Dinner of the night before had delayed the rising of most of his audience ; his tendency has been to remove less and less of the sac in order to avoid injury to any conducting neural tissue and now he removes none, but stitches its edges to the fascial defect and closes the skin over it.

My paper on non-malignant duodeno-colic fistula followed. One man discussed it, and he said, " I am a country doctor and a country doctor has been defined as a man with manure on his boots and a case report on his lips." This gave me the lead in replying, to tell my story of the old farmer at Woburn who insisted on paying my fee in pound notes : " You see sir," he said, " It helps me with income tax. I shall put you down as a load of manure."

Dick Cattell of Boston followed with a splendid paper on Pheochromocytoma of the adrenal. He says we should suspect such a tumour in any patient with vasomotor attacks and in those with hypermetabolism without a thyroid

syndrome. Many cases present without warning as a hypertensive emergency during an operation. The surgeon then has three alternatives :—

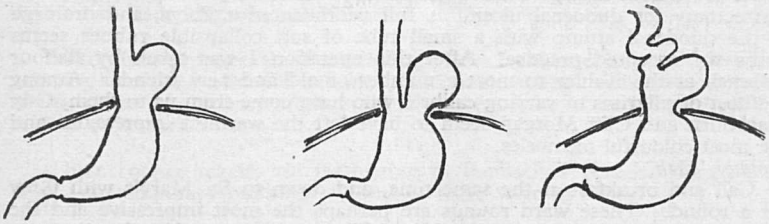
1. To stop the operation at once and investigate at leisure.
2. To stop the planned operation and explore the adrenal at once.
3. To give anti-adrenalin drugs (Dibenamine) and carry on.

He reported 4 cases. Dibenamine must be used with great caution, particularly when the tumour is about to come out, as it produces a sudden and profound drop in blood pressure.

Bill Reinhoff followed with a paper on Hyperparathyroidism. The high serum calcium level is not reflected in the cerebrospinal fluid, unlike in osteomalacia, Paget's disease and bone metastases. The commonest clinical picture in his series was renal calculosis and all patients had hypertension. The mortality in the post-operative period was 30%, a strong argument for the early detection and removal of these tumours. All cases with bone involvement had post-operative tetany, but none of those with renal involvement. Reinhoff gave the location of the tumours in his series, which was over a very wide area, extending right down to the pericardium.

The last paper was by Everett Evans of Richmond, Virginia, on "Potassium deficiency in surgical patients." It was stuffed with figures and diagrams and one of the best in the whole meeting. I hope to get a reprint as the subject is one with which every surgeon should be conversant.

The afternoon papers attracted dwindling enthusiasm as the meeting drew to a close. J. D. Rives of New Orleans discussed the repair of Hiatus herniæ and described three types :—



Short Œsophagus | Para-œsophageal hernia | Hiatus hernia; normal œsophagus

After a dinner with Henry Cave and party, I caught the midnight train to Cincinnati, then a plane to Chicago where I had to put in four hours. I was met by a representative of American Airways who saw me through, found me a table at Marshall Field's cloud room overlooking the air field and gave me a chit for a free lunch. The plane to Rochester was a Martin. The Martin and the Condor are two types much used on the shorter routes, nearly as big and as fast as the four engined planes, but with two huge engines. The Martin carries its own stairway, that lets down in the tail. As we neared Rochester we ran into snow and landed in a snowfall. Balfour and Howard Gray were there to meet me and I was taken to stay with Gray.

Gray has broken fresh ground in that he has built himself a house on a hill looking towards Rochester on one side and over open country on the other. As Rochester is such a tiny town, and St. Mary's Hospital is on the same side as this hill, he has only got a five minute drive to work. Balfour drove me up to the Gray's house. Gray himself could not follow until he had stopped at a garage to get chains put on his wheels.

The house is something on the plan of the Stecher's at Cleveland, a long two-storey wooden building with a basement. To the left is a garage for three cars, opening at the side into the house via the kitchen. Then come three living rooms with arches between them, first the dining room then a lounge with an electric organ whose tone-distributor is in the archway, then a lounge with a piano, television apparatus and one of the modern slow-speed gramophones that will play about 40 minutes on one record. Beyond on the ground floor is the guest room with its own bathroom and dressing room Along the whole length is a passage. In the basement is all the "works" of the house, air conditioning, thermostatically controlled heating and hot water, a large deep freeze and stores, and at one end a large play room with music and an electric grill for the youngsters. In front of the house a Christmas tree shone its lights across the valley.

I got changed and went to a dinner to Staff and Fellows at Will Mayo's old house, which is now reserved for functions such as this. I was asked to speak, and discussed the general problems of socialised medicine, which I had kept off at Santa Barbara and finished with stories to keep the level light. Then came my lecture on the Duodenum.

Saturday, 10th.

All Americans works much harder than we do. In any city, the rush of cars carrying business men to their work is at its maximum from 7.30 to 8.30. I was knocked up by Gray at 6.45 and we were off to St. Mary's Hospital at 8 a.m. The Mayo Clinic operating list for that morning showed that 19 surgeons were performing 65 different operations in 31 theatres in three hospitals, in addition to which a number of diagnostic and minor therapeutic procedures were listed. From this wealth I selected Waugh, who was resecting a post-operative stricture of the common duct (the first operation done elsewhere). He implanted a vitallium tube and approximated the two ends of the duct round it by about 8 silk sutures. The vitallium tube is intended to stay in, but the duct epithelium forms round it, unlike a rubber tube which is more of an irritant, and if there is a suggestion of obstruction the vitallium can be removed later. Waugh then did a gastrectomy for duodenal ulcer: He did an anterior full width Polya. In between operations I watched Priestley doing a resection for a gastro-jejunal ulcer. He detached the jejunum from the stoma and closed the hole transversely, instead of resecting the involved length of jejunum: this seems to be the normal practice at the Clinic and they find it very safe and satisfactory.

At 11. Balfour called for me to the Colonial where Clagett was doing another gastrectomy for duodenal ulcer. A full width anterior Polya, and drainage of the duodenal stump with a small tube of soft collapsible rubber seems to be the accepted practice. After this operation I was taken by Balfour to lunch at the Kahler to meet a number of old and new friends. Among the host of pilgrims of varying calibres who have come from us to them, Guy Blackburn and Cliff Morgan seem to have left the warmest impressions and the most colourful memories.

Sunday, 11th.

Call and breakfast at the same time, and down to St. Mary's with Gray for a round. These ward rounds are perhaps the most impressive and the most instructive thing about the Mayo Clinic. It seems that the surgeons operate on alternate days, and on the others they do ward rounds in the mornings and see new patients or consultations at the Clinic in the afternoons. The ward rounds are most impressive. The surgeon with his assistant and the Fellows attached to him goes to see every case he has operated on or is going to operate on and he considers each most carefully before going on to the next. The number of pre-operative investigations and analyses that are performed even on what appears to be a straightforward case seem a little alarming at first, but there is no question of penny in the slot diagnosis or of easy acceptance of operation as the necessary treatment. Each case is considered several times before operation is done, not merely whether operation is necessary, but when it shall be done and what form it shall take. After operation the discussions with patients about what has been done and what the future is likely to be, are much franker than they are with us, particularly if the patient has cancer. They seem to believe in telling a patient that he has a cancer if such is the case, but naturally stress the bright side of the picture to him, if not to his relatives.

In the afternoon I went with Balfour and a party from the Mayo Clinic to St. Olaf's College, a University, chiefly Norwegian, about 50 miles away. On the way we had to fight through a real blizzard, howling wind, sheets of rain and later, sleet. The temperature fell from perhaps 40F° when we left, to 10° under zero for the homeward drive. The Christmas party at St. Olaf's is famed all over America. They have a highly trained choir of perhaps 200 voices, subdivided into several choirs dressed in different colours. For two hours they give a programme of Christmas music, some of the best of which was carols composed by a former director of music, Christiansen, and conducted by his son. The various choirs came in in turn down the darkened hall, singing as they came, and took their seats on the stage. High up behind them was a tableau of the Holy family.

We drove back in brass monkey weather.

(to be continued)

The Guy's Hospital Token

By H. St. John Rumsey, M.A.

The story of the issues of tokens is a long one—the most reliable history of them is contained in four large volumes—but Messrs. A. H. Baldwin & Son, old friends of mine, have kindly sent the outline of the background of the issue of the Guy's Hospital penny token mentioned in Wilks and Bettany's history of the Hospital.

Mr. Baldwin writes—" At various times in the history of this country's coinage traders have resorted to token issues owing to the scarcity of regal coins of small denomination. These tokens are often of good workmanship and bear local and personal devices which are now of great interest to those who study former social conditions through the evidence of the eyes."

One main group of tokens was issued towards the end of the eighteenth century, beginning for practical purposes with an extensive series for the PAPYS MINES Co., in Anglesey in 1787. The practice quickly grew and within a very few years the whole country was using copper halfpenny tokens and a smaller number of pennies and farthings. These tokens were redeemed locally, usually the traders in each district would accept one another's so that day to day trade might be made easier.

As so often happens, these interesting pieces were in considerable demand and very soon their collection became a fashionable hobby. The manufacturers of the tokens saw an easy profit and made tokens which they advertised and sold to collectors.

These copper tokens are fascinating in themselves because they chiefly depict contemporary buildings. Most of them were in series.

One of these was KEMPSON'S SERIES OF LONDON BUILDINGS and in this series is the interesting token showing Guy's Hospital as it appeared in about 1790. Although this piece bears the legend LONDON PROMISSORY PENNY TOKEN it, in fact, did not circulate as currency, nor was it intended for this purpose. The series covers many important buildings, so it is a valuable record of eighteenth century London, since those tokens were made before photography had been discovered.

From our point of view it is interesting to note that the series contained, in addition to Guy's, four other teaching hospitals, St. Bartholomew's, St. George's, The Middlesex and St. Thomas', there were also six lesser hospitals—Chelsea, Christ's Church, The Foundling, Greenwich, St. Luke's and The Bethlehem ; the eight Gates of London and various public buildings completed the series of thirty-six. Some readers may be interested to know that there is a series of Cambridge Colleges, most of these depict the gateways ; among these is a curiously foreshortened view of King's Chapel and on the reverse the " elephant house " or Gibb's Building.

Annual Meeting of the Guy's Hospital Nurses' League

The 50th annual meeting and reunion of the Guy's Hospital Nurses' League was held on May 5th. Approximately 350 past members attended.

Prior to the meeting the usual service was held in the Chapel which was filled to capacity. All the members gazed with wonder and admiration at the lovely transformation. We were so pleased to have the decoration completed for this Service. The Service was conducted by the Chaplain and the address given by our old friend and one time Chaplain to the Hospital, the Rev. Dudley Hodges. He was greeted by a large number of old Guy's nurses who remembered him. He spoke of the need for Christianity in our work as nurses and of the many opportunities nurses have to proclaim their faith.

The meeting was held in the physiology theatre by kind permission of Professor Spurrell. The platform had been transformed into a veritable garden of flowers, a setting suitable for the occasion. The Chairman, Mrs. Bulleid, extended a warm welcome to the members and introduced the Guest Chairman, Miss C. F. Bell, who is now Matron of the Leicester Royal Infirmary. The Matron, Hon. Secretary of the League, read apologies for absence from Miss Hogg, Miss MacManus and several other League members who also sent good wishes. Matron, presenting the annual report, reminded the members that the first meeting of the League was held fifty years ago when Dame Sarah Swift was Matron. Matron then gave a very interesting account of the activities during the past year.

Miss Bell then presented the prizes.

Needlework Exhibition.

Plain needlework	*Fancy Work*	*Knitting*
Mrs. Fawcitt	Miss P. M. Haynes	Miss B. Stamp
Miss Pestell	Miss M. Poyser	Miss M. Massey

Dressmaking	*Handicrafts*	*Make and Mend*
Miss B. Dixon	Mrs. Talbot	Miss Goffin
Mrs. J. H. Gill	Miss Phillips	Miss B. Dixon

Photographic Exhibition

	Special Prizes	*Paintings*
Miss E. M. Lloyd	Miss M. C. E. Law	Miss D. Swindells
Miss Freda Curtis	Miss Lister	Miss E. M. Yates
Miss Florence Taylor		

Miss Bell then gave a most interesting talk about industry as she had been in contact with it in the great industrial city in which she is now working; within a factory there evidently are activities as numerous and varied as one finds within the walls of a hospital.

Mr. Doherty gave much pleasure to the members when he spoke of the reconstruction of the hospital and particularly of the improvements in the wards which have been made during the past year. Members were all invited to visit the wards and to see for themselves some of the transformations.

Miss Marriott proposed a vote of thanks to Miss Bell for taking the Chair and for her interesting address. Sister Dorothy Holland seconded. Miss Opie proposed a vote of thanks to Mrs. Bulleid, Chairman of the League, Matron, Hon. Secretary, Mrs. Shackles, Hon. Treasurer and to Miss Zygouras for her work as Secretary. Miss Pestell seconded.

At the close of the meeting a delicious tea was served in the Nurses' Home. Nearly 400 Guy's Nurses chattering over nearly 400 cups of tea has to be heard to be believed. This concluded a very successful reunion.

F.T.

Correspondence

Soil Fertility and the Health of the People

SIR,—Your reference in Passim of 8th April to the need for more and better anti-biotics stimulates me to ask if medical therapeutics are similar to agrichemical therapeutics, in which more and better chemical fertilizers are used to grow more crops of a less virile and disease-resisting nature year by year and more effective sprays, powders and insecticides are also produced in the hopeless attempt to keep pace with the degeneration and the diseases that follow. Finally the whole is destroyed, e.g., big bud in blackcurrant bushes must be burnt, also must cattle with foot-and-mouth disease.

Are not Guy's patients fading away because no heed is paid to the work of Sir Robert McCarrison and J. Drummond of twenty-five years ago and confirmatory work in recent years on the dietitic value of foods grown by organic methods and the lack of virtue in those grown by the use of chemical fertilizers ?

May I make use of the idea expressed by Everard Turner, L.D.S. of Guy's, in his article published in the Winter 1949-50 copy of the Journal of the Soil Association of Mother Earth. Get the administrators, sociologists, doctors and everynoe else out of the cart (medical therapy) and revive the horse (ecological balance), lying almost moribund in the hands of the various ministries and transport the people along the road to health and away from Bevan's sickness service.

Such works as the Cantor Lectures by R. McCarrison ; " Thoughts on Feeding," by Dr. Lionel Picton ; " The Living Soil," by Lady Balfour ; and " Nutrition and Physical Degeneration," by A. Weston Price may interest your readers who feel that correct food production and preparation are the main cause of ill health.

Yours, etc.,

STANLEY P. MEACOCK.

6 Eaton Road,
Coventry.

Etiquette

SIR,—The changing times have brought to Guy's many married students : when, as sometimes happens, a student's wife is in need of medical advice. what more natural than that she should seek that of our own teachers ? Shall she reach her consultation through " the usual channels "—under doctor's letter, through the queue at the appointments desk, and by wearying but unavoidable waiting till her name be called ? Of course ! Shall she take her turn in the X-ray department and be just another " chest " or " abdomen "? Most certainly ! But, having reached the consulting room, shall she there be examined by students, her husband's contemporaries ?

Surely the answer must be an emphatic " No !" for may she not later be required to meet these same students socially, or indeed, already have done so ?

Must these wives who are old enough to be discomfited by such a possibility forgo the privilege of the much valued counsel of our own Honoraries ? A sad state of affairs—Let the old order change !

Yours, etc.,

E. E. CLAPHAM.

Guy's Hospital, S.E.1.

Mr. J. Winston—An Appreciation

SIR,—It is with sincere regret that we learn of the early retirement of Mr. J. Winston from the post of Secretary of the Medical School. Before we become too used to the change we would like to record our appreciation of the manner with which he carried out his duties. Every newcomer to the Medical School received from him a most pleasant welcome and a word of encouragement for the future. He has always been ready to give a polite and courteous reception to all who came to him and to listen with sincere attention. These are important and necessary qualities for one occupying such a position. May we add that in many ways he has set an exceedingly high standard. We wish to record our very best wishes to Mr. Winston for the future.

Yours etc.,
N. E. BEDOW.
(For and on behalf of the Technical Staff of the Hospital and Medical School)

Chemistry Department,
Guy's Hospital Medical School, S.E.1.

Guy's Theatre Club

SIR,—It would be appreciated if it could be brought to the notice o *Gazette* readers that Guy's Theatre Club propose next to produce "The Moon in the Yellow River," by Denis Johnston. It is hoped to present the play in late November.

Auditions will be held this month and will be widely advertised by posters. Any person who is interested in acting will be welcome—previous experience is not necessary.

Anybody interested in producing (who would like to acquire some experience of Hospital play production), stage-management, scenery construction or painting, carpentry, lighting, make-up, wardrobe, poster designing, catering, or any other aspect of the theatre, is earnestly requested to communicate with the Producer, Mr. J. E. Scriven (4th year Medical Student), as soon as possible.

Yours, etc.,
B. L. MALLETT
Hon. Secretary.

Guy's Hospital,
London, S.E.1

Indices to the Lancet

SIR,—I am anxious to obtain the indices to the following volumes of the *Lancet*: 1948-1 (Jan.-June), 1948-2 (July-Dec.), 1949-1 (Jan.-June). The *Lancet* office is unable to provide me with them as they are out of print. Might I, through the medium of your excellent and widely read journal, ask anyone who has one (or all) of these, and who is willing to part with the same, whether he would be so kind as to send it to me. I should be most grateful.

Yours, etc.,
H. A. RIPMAN.

Guy's Hospital, S.E.1.

Sport

GOLF

DENTAL STAFF *v.* STUDENTS

Knole Park Golf Club, Sevenoaks
17th May, 1950

It was most encouraging to see so many of the Staff taking part and we are grateful to Mr. Mansie for his persistent efforts in getting such a good side together. Whether or not the Staff had any special coaching for the match they would not say, but calmly proceeded to win the match by six games to one. There were some very close games including the one which required an outrageous putt by Mr. Mansie on the 18th green to decide the match.

On behalf of the Students I would like to take this opportunity of thanking the Staff for another most enjoyable match.

Results :—

Staff			*Students*	
J. L. Harrington			J. M. D. Grant	
B. G. Donner	2/1	1	J. A. Mepsted	0
J. W. Mansie			R. Park	
R. J. Wheatley	1 up	1	M. J. Quelch	0
C. I. Hagger			A. E. Bond	
J. R. Dyer		0	P. M. Rusden	1
M. Malleson	2/3		J. M. A. Cameron	
A. Baker		1	R. F. Hodson	0
W. S. McConnell			J. A. Darvell	
K. Hooper	3/1	1	H. E. Meyer	0
A. Bulleid			N. J. Mayson	
G. S. Loader	2/1	1	W. Flynn	0
N. A. Power			J. A. G. Dunn	
H. Richards	8/7	1	P. G. Willis	0
		6		1

J.M.D.G.

House Appointments

1st JUNE, 1950

GUY'S

ASSISTANT HOUSE SURGEONS

To Mr. Slesinger .. Mr. J. B. Parsons
„ Mr. Wass .. Mr. H. M. Baird
„ Mr. Blackburn .. Mr. A. G. Blyth
„ Mr. Lawrie .. Mr. W. N. Whamond
„ Mr. Glover .. Mr. W. N. Watson
Appointed for six months, the first three months as Assistant House Surgeon.

OUT-PATIENT OFFICERS

Mr. K. F. Robinson
Mr. J. M. Hunter
Mr. R. Goulding
Mr. R. G. Beard
} 3 months

HOUSE SURGEONS

To Sir Heneage Ogilvie Mr. J. A. Loeb 6 *months*
„ Mr. Massie .. Mr. O. L. Thomas 3 *months*
„ Mr. Eckhoff .. Mr. M. C. Gilbert 6 *months*
„ Mr. Atkins .. Mr. F. G. Ellis 6 *months*

HOUSE PHYSICIANS

To Sir John Conybeare and Dr. Hardwick .. Mr. W. J. C. Symonds
Mr. J. F. Soothill 3 *months*
„ Dr. Boland and Dr. Baker .. Mr. D. C. Turk*
Mr. C. J. Earl* 6 *months*
„ Dr. Hampson .. Mr. R. H. R. White 3 *months*
Dr. Kauntze .. Mr. W. Van't Hoff* 6 *months*
„ Dr. Douthwaite and Dr. Mann .. Mr. J. D. Morris
Mr. A. T. T. Forrester 3 *months*

CHILDREN'S HOUSE PHYSICIANS

Mr. T. E. Oppe* 3 *months*
Mr. K. Simpson* 6 *months*

THROAT AND EAR HOUSE SURGEON

Mr. A. M. Reader 6 *months*
(*first* 3 *at Guy's*)

OPHTHALMIC HOUSE SURGEON

Mr. R. L. Timms* 6 *months*

HOUSE SURGEON TO THE THORACIC UNIT

Mr. G. W. Scott 6 *months*

DERMATOLOGICAL HOUSE PHYSICIAN

Mr. J. L. Moffatt* 6 *months*

GENITO-URINARY HOUSE SURGEON

Mr. C. J. G. Menzies 3 *months*

NEUROLOGICAL HOUSE PHYSICIAN

Mr. J. G. Hamilton* 3 *months*

RESIDENT OBSTETRICIANS

1.1.50—30.6.50 Mr. K. A. A. Campbell*
1.3.50—31.8.50 Mr. J. M. Holmes*
1.5.50—31.10.50 Mr. R. W. Hughes*
1.7.50—31.12.50 Mr. E. P. H. Shortt*

RESIDENT JUNIOR CLINICAL PATHOLOGISTS

1.3.50—31.8.50 Mr. P. B. Poole
1.4.50—30.9.50 Mr. D. F. V. Brunsdon*

ORPINGTON

HOUSE SURGEONS

Mr. R. J. Powell
Mr. P. R. Sowerby

SOUTHERN

HOUSE PHYSICIAN

Mr. R. C. Greenberg

HOUSE SURGEON

Mr. M. J. R. Mackrill

PEMBURY

HOUSE SURGEON

Mr. J. C. Camac

JOYCE GREEN

HOUSE SURGEON

Mr. E. C. Lewis

*Ex-Service Medical Officer.

Hospital Information, etc.

APPOINTMENTS VACANT.

YORK CLINIC FOR PSYCHOLOGICAL MEDICINE

RESIDENT HOUSE PHYSICIAN

Applications are invited for the post of **Resident House Physician** (B.2): duties to commence on 1st July, 1950. The appointment will be for six months in the first instance, and may be renewed for further such periods. The post offers good opportunities for Post-Graduate study. The salary of the post will be in accordance with the Terms and Conditions of Service for House Officers in the National Health Service. Applications, accompanied by copies of two testimonials, should be sent to the Superintendent, Guy's Hospital, London Bridge, S.E.1, not later than 24th June, 1950.

LONDON TEACHING HOSPITALS

BOARDS OF GOVERNORS

The Ministry of Health has made the following appointments mainly to fill vacancies caused by the retirement of members to the Boards of Governors :—

Guy's Hospital.

Reappointed. S. B. Askew, Alderman R. H. Burslem, J.P., E. V. Evans, O.B.E., Professor T. B. Johnston, C.B.E., M.D., K. I. Julian, Henry Levitt, Professor W. R. Spurrell, F.R.C.S., F. S. Warner, M.R.C.S., F.D.S.

New Members. W. J. Driscoll, Miss Mabel Crout.

Guy's men appointed to other hospitals are as follows :—

London Hospital. D. W. Northfield, F.R.C.S. (Reappointed).

Hospital for Sick Children. I. A. B. Cathie, M.D. (Reappointed).

Moorfields, Westminster and Central Eye Hospital. F. W. Law, F.R.C.S. (Reappointed).

Bethlem and Maudsley Hospitals. T. A. Munro, M.D. (Reappointed).

Hospitals for Diseases of the Chest. Sir Bennett Hance, K.C.I.E., O.B.E., M.D. (Reappointed).

Royal National Orthopædic Hospital. A. T. Fripp, F.R.C.S. (Reappointed).

National Heart Hospital. R. C. Brock, M.S., J. M. H. Campbell, O.B.E., M.D. (both Reappointed).

Queen Charlotte's and Chelsea Hospitals. Frank Cook, F.R.C.S., (Reappointed).

Eastman Dental Hospital. Professor W. E. Herbert, M.R.C.S., F.D.S. (Reappointed).

GUY'S HOSPITAL REPORTS

1950. Vol. 99. Part I

Contents

Coronary Occlusion. By K. S. MacLean, pp. 1-40.

Report on a Preliminary Investigation into the Incidence of Inhalation of Blood and other Débris during Dental Extractions under General Anæsthesia in the Upright Position. By I. Kelsey Fry and C. J. Earl., pp. 41-47.

A case of Tetanus with a Review of the Cases at Guy's Hospital, 1929-49. By N. K. Macrae-Gibson, pp. 48-61.

Pyruvate Tolerance in Peripheral Neuropathy and other Conditions. By C. L. Joiner, R. H. S. Thompson and D. Watson. pp. 62-76.

Cystic Tumours of the Great Omentum. By F. J. C. Matthews. pp. 77-78.

PASS LIST

ROYAL COLLEGE OF PHYSICIANS OF LONDON

M.R.C.P.

I. S. Hodgson-Jones N. C. T. Watford
K. E. Jefferson

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

Diploma

W. J. St. E-G. Rhys

CONJOINT BOARD

D.T.M. and H.

P. H. Lomax

D.C.H.

A. R. Darlow N. K. Macrae-Gibson
J. A. Irwin E. G. Murphy
J. Luder

UNIVERSITY OF LONDON

DIPLOMA IN PSYCHOLOGICAL MEDICINE

March, 1950

J. P. Crawford, M.B., B.S.

OXFORD UNIVERSITY

B.M., B.Ch.

Forensic Medicine and Public Health

E. J. Elkington J. E. K. Moore

Special and Clinical Pathology

E. J. Elkington J. E. K. Moore

SOCIETY OF APOTHECARIES OF LONDON

April, 1950

Final Examination

Surgery

*P. A. Van der Merwe

Pathology, Bacteriology and Forensic Medicine

N. L. Rowe I. J. P. Woodhouse
H. C. Killey

Medicine

N. L. Rowe H. C. Killey

Midwifery

E. J. Covill A. H. R. Hewett-Clark

*Has completed the Examination.

BIRTHS

BROUGHAM.—On April 26th, 1950, at Ormond Lodge, Bath, to Teresa (née Pinkey) wife of Lt. Commander M. J. Brougham, O.B.E, R.N., — a sister for Gillian and Michael.

BROWN.—On March 22nd, 1950, at Wyalkatchem District Hospital, Western Australia, to Marjorie (née Emslie) wife of Alex Brown —a daughter (Alison Lynette)

MARTIN.—On May 17th, 1950 at Nuffield House, Guy's Hospital, to Rosemary (née Orlebar) wife of Eric J. Martin, L.D.S.— a son (Alan Orlebar).

MARRIAGES

GLOVER—GARNETT.—On April 22nd, 1950, at Guildford, Surrey, Eric A Glover, B.D.S., to Nina Doreen Garnett.

DEATHS

BOUTWOOD.—On May 16th, 1950, Ralph Boutwood, L.D.S.Eng., of 52a The Drive, Sevenoaks, Kent and 2 Harley St., London W.1.

CHANNELL.—On May 27th, 1950, at Brompton Hospital, Gerald Dalton Channell, M.A., F.R.C.S., Beechwood Cottage, Knebworth, Herts.

COLEMAN.—On May, 21st, 1950, James Jordon Coleman, M.B., of Ribblesdale House, Stainforth, Yorks.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1615 *17th June, 1950* *Ninepence*

PASSIM

JUST about this time last year a very enjoyable Garden Party took place in the Park on the occasion when Lord Nuffield's Statue was unveiled. The sunshine and the holiday atmosphere which begins to pervade Guy's, combine to make us wonder whether Lord Nuffield's statue ought not to be unveiled with similar celebration this year. We might even dispense with such an excuse and hold a garden party every year for no other reason than—as was evident last year—everybody enjoys them. If, indeed, the Governors were to entertain such an idea they could, we feel, be sure of it receiving a cordial reception and strong support from many present and many past members of the Guy's family. A summer counterpart to the Autumn Biennial Dinner would also solve in the fairest possible manner, how suitably to entertain the increasing number of women now entering the hospital. "Firm" dinners and annual dinners are in our opinion neither as suitable nor as enjoyable for them as would be an Annual Garden Party.

The Clinical Student has arranged for him such a heavy programme of 'Rounds,' Lectures, Out-Patients and Demonstrations that he has little enough time to enjoy the many alternatives for learning that await him—browsing in the Museum, wandering round the wards, attending Combined 'Rounds' and Clinical Meetings, etc. It is seldom, therefore, that he bothers to visit other Hospitals or Institutions of his own free will. This, in our opinion, is a great pity, and we strongly recommend him to accept invitations such as the cordial one which has just been received by the Department of Surgery for senior students to visit St. Marks Hospital.

In addition to invitations coming through official sources, there are many which a student, as he becomes more senior, will receive from people he meets. He would do well to accept them. Other Teaching Hospitals have, of course, a wealth of interesting cases, but the non-teaching hospitals also have far more than enough to engage the interest of any student. In the provincial hospitals—the municipal hospitals and cottage hospitals—in the Homes for the chronic sick, there are to be found many cases with histories and physical signs of great teaching value, giving, perhaps a better idea than may otherwise be obtained of what are those common things which commonly occur. In a teaching hospital, where it is often that generally uncommon conditions are frequently seen, a wrong sense of proportion may easily be developed.

There is another side to this peripatetic learning. In one's own Hospital, learning by the bedside under the guidance of an Honorary or Registrar, one soon becomes accustomed to a 'spoon-fed' method of learning and one seldom has to make up one's own mind. With no-one, however, except perhaps a newly qualified House Surgeon or Physician to lean on, one is forced to use one's own brains and wits. An ordinary goitre remains an ordinary goitre unless you yourself can show it to be a case of Hashimoto's Disease. Recently we had the exhausting experience of being led by an Obstetric Surgeon in the Provinces round his twenty-six beds in the space of an hour. In a few moments at the foot of each patient we were told about the case, asked the chief features of such cases, hammered at high speed about these chief features, and we quickly learned that we should have to learn to think a great deal faster than the student normally does at Guy's, where he can expect a comfortable half-hour's dissertation upon each case.

But, most of all, by such eclectic methods of learning, one is brought to realise that it is not from the cases in any one hospital or even in several hospitals that one will learn most. One will learn most only by watching, observing and seeking out, for teaching material is really to be found everywhere and all the time if we but look for it.

Waters, Holidays and Cures

By HUGH BARBER, M.D., F.R.C.P.
Consulting Physician, Derbyshire Royal Infirmary

IT was in the eighteenth century that "taking the waters" was most in fashion. The idea of "taking a holiday" was first in evidence about the middle of that century. The spas were neglected in the first half of the nineteenth century but towards the latter part were much in vogue, particularly those on the Continent, where a course of treatment was called "taking a cure."

From the time of Charles the Second until the First World War, waters, holidays and cures were intermingled. While patients improved in health, both they and their relatives obtained amusement and change of scene. Lord Chesterfield in 1756, writing from Bath, concludes a letter, "Adieu! I am going to the ball, to save my eyes from reading and my mind from thinking." From the same city Jane Austen, in 1801, begins a letter to her sister, "When my uncle went to take his second glass of water, I walked with him."

TAKING THE WATERS

We know that the Romans frequented Bath and other English spas but in the main because of this inhospitable climate. The mineral springs at Spa in Belgium were discovered in 1326 and by the eighteenth century it had become a fashionable resort. Buxton was visited by famous Elizabethians, including the Earls of Essex and Liecester, and by Mary, Queen of Scots. The accommodation was in advance of anything to be obtained at Bath. In the seventeenth century the English spas were frequented before the Civil War and Royalty visited Tunbridge Wells on medical advice.

After the Restoration, we hear from Samual Pepys (1663) that the King and Queen went to Bath. Two years laters we learn of Lady Sandwich at Tunbridge Wells, that "drinking the water did almost kill her before she she could with most violent physique get it out of her body again." When Pepys himself was at Bath a few years later, he thought it was not clean for so many bodies to be together in the same water. It seems strange that he should cavil at this, because the day before he bathed there is the entry, "Our beds good but lousy; which did make us merry."

In the time of Charles the Second came the pursuit of pleasure, as a reaction against former days of Puritan austerity. The spirit was ripe for the great days of Bath which were to come, but spa accommodation was poor; as is recorded by a lady writing from Knaresborough Spa (now Harrogate) in 1665, where she finds the sulphur waters as bad as can be imagined but more pleasant than the company or the lodgings.

Travelling facilities were poor. John Dryden (suffering from gravel), and a friend, were advised to take the waters of Bath, but decided to drink them at home to try the effect, so that if the benefit was less than promised "we will save ourselves the pains of going thither."

To drink the waters at home was a regular practice. Dean Swift in 1708 had a "cholic" in Dublin, but with "a little physic and the Spa and Bath waters, escaped without other hardship." Four years later in London, when suffering from giddiness, he "drank Spa waters these two or three days; but they do not pass and make me very giddy." A few days later he writes, that he has given them up because they have caused swelling of the legs. Within a fortnight there is complete disillusionment with the statement—"I have given away all my Spa water."

Change of scene and habits, by a sojourn at some spa, were really more important. Horace Walpole, writing in 1766, said that it did ten times more good to leave Bath than to go to it; but he added, "my health is certainly mended but I did not feel the satisfaction of it till I got home."

It would appear that the doctors put too much faith in the actual drinking of these waters by countenancing the use of them at home. Blind faith in any medical remedy is dangerous to the doctor's reputation. If Lady Sandwich

was ill while taking the waters. it was only natural to assume they were the cause. The Victorian general practitioner, in whose bottle of medicine the the public found such virtue, discovered, if things went wrong, that occasional unjust criticism may be the price that doctors pay for some former credit they scarcely deserved.

It was in 1703 that Queen Anne was at Bath and the city was frequented by people of distinction. The first master of the ceremonies allowed smoking in the rooms and other forms of boorish behaviour ; but when Richard Nash succeeded all was changed. He taught good manners, broke down social exclusiveness and organised amusements. Some of his rules seem rather foolish, but the English were an uncouth people in whom the manners learned at Bath improved the tone in London

Before his time the amenities were rural, but the spas were the only places of general resort outside London and the country houses. Under Nash's management at Bath and Tunbridge Wells there was a holiday society with lectures and balls ending at eleven o'clock, so that invalids should not suffer fatigue. There was much gambling, of which Oliver Goldsmith tells us that, whereas formerly foreign cardsharpers having spent the winter in London and the spring in Aix, Spa or the Hague, they would now come to Bath. A percentage of the profits found its way into Nash's pocket, although he was never accused of being unfair himself. One of Steele's essays in the Tatler of 1709 is on Sharpers at Bath, in which he warns the unwary. Eventually in 1745 gambling was suppressed by law.

Bath, however, catered for more intellectual people, with reading rooms and by 1740 provided one of the first circulating libraries. There were charitable objects as well. Nash on one occasion passed round the hat for a poor clergyman's invalid wife. In a more substantial way, with Dr. Oliver (after whom the biscuit is named) he collected money to found the hospital.

He was instrumental in putting up statues to do honour to distinguished royal patrons who had benefited by treatment ; which was a judicious mixture of compliment and local advertising. Gradually his position as uncrowned king deteriorated and Goldsmith tells us that " he pursued trifles and therefore his mind shrunk." When he was a poor old man of eighty, however, he retained some spirit. For when his doctor criticised his habit of going to bed after a heavy meal, like the brutes who lay down when the stomach was full, Nash responded ; " very true and this prescription I had from my neighbour's cow, who is a better physician than you." He lived for eighty seven years. I do not know what up-to-date geriatricians believe, but to me it has always seemed reasonable, when called in to an octogenerian, to meet him in consultation on himself.

Those who live long enough must inevitably suffer from old age. Their need is not so much for specialist medical advice, but their health and happiness depend chiefly on the kind of womanly care they receive in the home, either private or institutional. For my own part, I would prefer to be a specialist on middle age, which is a preventable disease or curable in its early stages.

Of the specific complaints for which spa waters were prescribed we hear most of gout, rheumatism and gravel. The standard regime was regular bathing, and three glasses of the waters three times a day.

Tobias Smollett, as we know, was a doctor. Retiring from the Navy, he did not succeed in practice either in London or in Bath, but found his vocation as a novelist. In *The Expedition of Humphrey Clinker* we have the account of a tour, in the latter part of the eighteenth century, which took in most of the English spas. The squire (Matthews Bramble), in charge of the party, is commonly believed to express Smollett's own views. At the Hot Well at Bristol there was no society. Bath had deteriorated in the last thirty years ; the company were up-starts of fortune. But his niece finds it lively and his nephew speaks highly of the company. The Squire complains, in writing to his doctor, that there are too many invalids for it to be healthy and adds, " even the consumption itself is highly infectious." Bath is a " stew-pot of idleness." At Harrowgate (spelt with a "w" in those days) the young people enjoyed the gaiety, finding the company more sociable than at Bath ; but the Squire considered the waters very unpleasant and believed

that sea-water, internally and externally, would have been just as beneficial. And so they came to Scarborough—both a spa and a seaside resort. An interesting feature was the new bathing machine, taken into the sea by a horse—a machine which survived until the twentieth century. At Buxton the Squire did not much relish the company or the accommodation. Perhaps both had deteriorated since the days of Mary Queen of Scots, or possibly our traveller was below the mark, for he admits that his " opinion of mankind, like mercury in the thermometer, rises and falls with the weather." Running through the whole expedition is a study of philosophical disillusionment of age.

The " sea-water cure " is worthy of special notice because it paved the way for the seaside holiday. As early as 1702 Sir John Floyer advised sea bathing. Scarborough being a spa close to the sea was in fashion early. It was recommended to women anxious to have a child. What the evidence may have been one does not know, but perhaps the bracing air may have benefited the male partner. It was Dr. Richard Russell in 1752 who popularised sea water, both internally and externally. Indeed he was known as " Sea-water Russell." Other more distinguished physicians, particularly Dr. Lettsom, encouraged the regimé.

It was natural that novelists should portray life at the spas. Fanny Burney, in *Evelina*, gives a picture of Bristol Hot Wells. In reading Jane Austen's private correspondence from Bath, one concludes that she was quietly observant without putting on paper the wit she saved for her novels. Although on one occasion she wrote, " Mr. B. seems nothing more than a tall young man."

The great days of the English spas were coming to an end. When Mr. Pickwick was at Bath (about 1830) the elite are no longer there. Although seen through his spectacles, or Sam Weller's eyes, the company might seem a little queer. For more than a hundred years, however, the spas had provided change of scene and entertainment unobtainable elsewhere.

It was a sound principle to combine treatment of physical ailments with judicious entertainment. If the Squire in *Humphrey Clinker* did not use our modern label, psychosomatic medicine, he wrote to his doctor that he continued to be unwell, " until the anxiety of my mind was entirely removed."

Like nearly all our basic principles in medicine the idea was known to the Greeks. At Epidaurus, not only is there the temple where healing took place, but there is a stadium for games and a theatre with perfect accoustic properties just round the corner.

Taking a Holiday

It was in the middle of the eighteenth century that the annual holiday away from home came into fashion. Formerly there had been tournaments and Saint's days. For the rich there was the Grand Tour in which all the countries and courts of Europe might be visited, but Switzerland was not included. In England the sea was becoming popular and when the Prince of Wales was at Brighton in 1783, Society followed to the detriment of Bath.

Travel had begun with the Crusaders and with the pilgrimage to a shrine. Roads were bad in the seventeenth and early eighteenth century. The Great North Road from Newark to Wetherby severely jolted Smollett. There were highway-men to fear. The mail-coach, which was faster than the old stage-coach, began in 1784. The heroine of Jane Austen's novel, *Emma*, living some fifteen miles south of London, at the age of nineteen had never visited the sea. The subject came up for discussion because a London physician had prescribed a seaside holiday for some little nephews and neices. The family doctor was dubious about the wisdom of this adventure. The grandfather said his only visit to the sea had nearly killed him.

By about 1800 Scarborough was advertised as a resort for children—the virtues of air and sunshine were recognised; so that " waters " sank to a lower level.

Wordsworth wrote a guide to the Lake District in 1810, in which he described the ascent of Scafell Pikes. He had travelled sufficiently to be able to make comparisons with Switzerland.

The public in general only awaited transport. The pleasure steam-boat in the eighteen-twenties made Margate and Ramsgate popular; but it is of interest that as late as 1842, when Charles Dickens went to America by steam-ship that he had an unpleasant crossing, so that he described these boats as "a most damnable invention" and returned by sailing ship.

In the eighteen-forties railway travel was becoming general. Thomas Cook, the pioneer of travel agency, made his first venture by taking a party by rail from Leicester to a temperance demonstration in Loughborough. His real opportunity came in organizing railway trips to the Great Exhibition in Hyde Park in 1851.

It was in the census of 1861 that, for the first time, there was an excess of urban over rural population, so that holiday resorts such as Blackpool and Morecambe needed developing; with the natural sequence that lodgings, landladies and ozone became pantomime jokes.

The link between the invalid and the holiday-maker is close. First in evidence at the spas, we find the relationship again when the Swiss mountain air was recommended for consumption in mid-nineteenth century, which encouraged the tourist to follow. Edward Whymper, after several failures, conquered the Matterhorn in 1865. As all the world knows, the tragedy of the descent might have been avoided, if mountaineering had not become so popular that there were less experienced members of his party.

With good facilities for travel, holidays in this country or abroad were easily arranged. It only remained to develop the ideas of entertainment initiated at Bath by Richard Nash. Pleasure piers, which had been built at Margate and Brighton some years previously, now multiplied. Dance Halls arose in imitation of the Assembly Rooms. The Nigger Minstrels gave their show—advertised as "Half an hour's fun without any vulgarity," and the Pierrot Troupe sang, "I do like to be beside the seaside."

In the last decade of the nineteenth century the bicycle holiday was popular; at which time hotels and steeps hills were marked with the sign of the Cyclist Touring Club.

Eventually there came the luxury cruise with organised games and entertainments and the less luxurious motor coach tour. The winter sports centres recognised the value of instructors and badges. For those who are sometimes called the masses we have Butlin's Holiday Camps, where the exclusiveness which Nash discouraged is non-existent.

Everything is now in order for holidays according to plan, but the individualistic holiday is not so easy to obtain.

Taking a Cure

In one of Galsworthy's stories, dealing with the period about 1880, James Forsyte says; "I can't hear you. They tell me I ought to take a cure. There's always a cure wanted for something. Emily had a cure." It was at this time that foreign spas, such as Carlsbad and Homberg were in fashion with prosperous Victorians. They could travel in Europe without difficulty, indeed without a passport.

In the English spas treatment was becoming scientific; the spa physicians were making additions to medical knowledge, which was no doubt the case at many foreign spas.

But, particularly with reference to the latter, a prosperous Victorian wished to discuss with a medical adviser the merits of some continental spa and share with him in choosing one which in the waters, the air and the society would be the most salubrious. If the Prince of Wales favoured the resort so much the better; for in those days Britannia ruled the waves.

Although no doubt the Harley Street physician took a grain of salt with his belief in these waters, he might be doing a good job of work in sending patients to the right spa, where the whole regimé would be beneficial to someone needing change from important responsible work, and quite probably from a too luxurious dinner-table.

Some people thought too little about keeping fit. The city man had not yet discovered the golf course. So that the quiet restricted regimé of a spa

would be beneficial. For those who were unduly interested in their health, to take a cure was a harmless proceeding. The modern counterpart of the latter will sometimes go annually to a clinic for investigation.

Towards the end of the nineteenth century it was appropriate that a consulting physician should be able to give intelligent advice about climate, and about the composition of the mineral waters. All the same, I remember it caused rather a flutter in the medical students of my time when a question was set on Natural Mineral Waters in an examination for a higher degree.

I have only been an examiner in medicine for one short period, but I sometimes wonder why examiners never set the same question twice running—if they are keen on the subject. My contemporaries decided that mineral waters would not come again in our time, so we never crammed the subject. It was all to be found in Allbutt's system of medicine (1905). Twenty-five pages are devoted to natural mineral waters. It seems there are eight varieties. Forty spas, mostly foreign, are analysed, recording the altitude and the temperature and composition of the waters. It would be tedious to enumerate the long list of diseases noted in the text-book. Gout, which some Victorians viewed with family pride, heads the list. There were many conditions included under irregular gout, then come obesity, rheumatism and, towards the end, such ill-defined enteties as " abdominal venosity " and " chronic congestion of the womb." But one should not be flippant about an old fashioned diagnosis—unless one has lived through the days. Sir Arthur Hurst once wrote an article entitled, " A Touch of Liver," at a time when we might have thought that the expression was as dead as a door nail, like Mr. Scrooge's partner.

The fashionable days for taking a cure abroad were from about 1880 to the 1914 war. I was examining a candidate for life insurance in this year of 1950. We none of us like forms, because we have to ask or answer other peoples questions. I was instructed to put the question ; " Were you ever ordered abroad for your health ?" It seemed in rather poor taste on this occasion because the examinee had been three and a half years in a prisoner of war camp in Germany. But in any event it seems rather out of date.

Towards the end of the nineteenth century it was chiefly the elderly who frequented the English spas. Unless there was cricket, tennis or golf for the younger generation, the old people must go alone. A niece in these days expected something more attractive—perhaps a bicycle ride—and would not be content to walk with her uncle, who perhaps required a stick, when he went for his second glass of water.

There were a few good hydropathic establishments with baths and waters on the premises, but as a rule not able to compete with a good hotel near the baths. And gradually the name Hydro was used for any sort of hotel, where all sorts of people mixed, with perhaps rather less exclusiveness than there might have been at Bath and possibly a little more than at a Butlin's Camp.

Spa treatment to-day is associated with modern methods of physiotherapy. Balneology has become Physical Medicine, which is of a nature too scientific to permit the use of the expression " taking a cure."

A modern course of spa treatment, however, seen through a patient's eyes, is described with inimitable charm by Mr. Bernard Darwin in " The Cure,' which is one of his essays in that delightful volume, " Every Idle Dream." He has learned, with Horace Walpole, that the benefit comes after he has gone home. No more is the gambling, flirting and intrigue of eighteenth century spas. In his words " nobody comes to this haunt of peace purely for fun." He catches the right spirit of restfulness when he explains, that there is a passive existence in which the patient does nothing and other people do things to him.

I can remember when my hospital out-patients first obtained the benefit of a physiotherapy department. It was an improvement on the old bottle of liniment. Yet there was something wanting. There was a danger that they drifted away from the variety of the main stream of patients. I could have wished in this back-water, that we could have provided a stimulus comparable with the Prince of Wales at Homberg, the Assembly Rooms at Bath or the theatre at Epidaurus.

Travel Sickness

By D. B. LONGMORE

A paper to Guy's Hospital Physiological Society, January 12th, 1950.

OUR civilisation depends on the transport of goods and people for its very existence. No people realise this more than we, in this small island home of ours. This country has a fine sea-faring tradition and a love of the sea which is perhaps, more deeply rooted than the realisation of the fact that we owe our freedom to its encirclement. This feeling is expressed for us by the Poet Laureate in the words :

> " I must go down to the seas again,
> to the vagrant gypsy life.
> To the gull's way and the whales way
> where the wind's like a whetted knife :
> And all I ask is a merry yarn from
> a laughing fellow rover,
> And a quiet sleep and a sweet dream
> when the long trick's over."

Unfortunately there is a crumpled rose leaf in the garden of so many lovers of the sea. It is the distressing condition of sea sickness. So awful can this be that some may even prefer death, as did Cicero, who when fleeing by sea from the anger of Mark Anthony and Fulvia was overtaken by sea sickness. Such was his plight that he preferred to return to face the death sentence rather than entrust himself further to the mercies of the sea. The unexplained disappearance of men from troopships in rough weather may be attributable to the fact that they preferred death to continued suffering. Indeed, young Prince Albert of Naples is supposed to have died of sea sickness as the Royal family was being evacuated by Nelson from Naples to Palermo.

Let us consider a little more closely this distressing condition. First we may observe a fellow traveller. About half an hour after the onset of the causative motion the victim becomes quiet and subdued. He ponders with a pensive look on his face. He looks miserable and smiles feebly when spoken to, apparently wishing to be left alone. While in this state, with lips blue, face of greenish hue, sweating brow and general disorder of mind and body, he may salivate freely, then vomit. This for a time obviously relieves him but soon he retches violently without result and becomes more distressed than before. If we ask him how he feels he tells us of an indefinable something in his epigastrium. He is cold, miserable, he is nauseated, his head aches, he feels confused and detached from his surroundings. He wants to lie down and be left alone, to eat nothing, or perhaps he would like some salty potato crisps, pickled onions, lemon or iced brandy.

This is a strange symptom first noted in the fifteenth century during a pilgrims sea passage and recorded in a Manuscript preserved in Trinity College library. I will try to do it justice :

> " And som wold have saltyd tost
> Ffor they myght ete neyther sode ne rost
> While others cry after hote malvesey."

Though I speak with the tongue of experience I confess I have never experienced this symptom. It is not perhaps such a strange symptom for if we examine our victim we find his stomach atonic. Might a pickled onion or a " Saltyd tost " stimulate such a gaster ? We also find his pulse irregular like a badly played drum. His respirations are irregular and sighing, and his blood pressure may be a little low. That the vomitus contains duodenal as well as stomach contents has been recognised for many years. Celsus advised a sea voyage for most illnesses and if the seeker after health should succumb to sea sickness on the way, he is recommended to bring up plenty of bile and to abstain from eating, or at least to eat little and be sure to vomit after every meal. A simple but unfashionable treatment.

By now you are probably wondering why this curious sequence of events should occur. Hippocrates said that the movement of the ship caused this

sickness. I think that it is a greatly distorted fright and flight reaction. Sickness is not an uncommon response when faced with the awful unknown. A Skua is a sea bird of prey and sea gulls are among its victims. When a sea gull is fortunate enough to see a Skua coming, it vomits up its food and darts away between the waves. The out-manœuvred Skua is satisfied by the sea gulls gastric contents. Perhaps some philogenetic accident has left us with a vestige of a similar reaction. Such speculation bring us no nearer to a remedy for sea sickness and the only insight into the mechanism it can give us is into the affector pathway since this is the only factor common to both situations.

In 1939 this is really as far as we had advanced in our study of sea sickness. It is true that many beautiful papers had been written, many fascinating theories propounded, some of them even containing a grain of truth and a very few were based on experimental data and not on speculation and impression. Many remedies were suggested. The old Sailors' remedy of swallowing a piece of fatty pork on the end of a string and pulling it up again, is only a thought more ridiculous than those suggested by people who should have at least made some pretence of proving or disproving the functional value of their cures. Such remedies consisted of things like this :

Constricting bandages round the abdomen ; even tighter constricting bandages round the neck. Beladonna plasters applied to various places ; red flannel ditto ; Numerous drugs which I will classify as sedatives, intelligent guesses, and the rest including the ever popular alcohol in the form of stout, neat brandy and iced champagne, prescribed according to whether the passenger was third or first class, for sea sickness is a truly democratic affliction. This was the situation at the beginning of World War II.

When the "phoney" war was over it was soon realised that the fate of nations would depend on land/sea/air combined operations, and these operations could easily be marred by sickness. The unreliability of our climate, coupled with the momentum of a large combined operation, made it imperative to either eliminate susceptible personnel from such operations, or to render them immune. It has been said that asthenic types were more susceptible than pyknic types. Cæsar's expert differentiation between these two types in his comment to Mark Anthony has been little improved upon.

> " Let me have men about me that are fat,
> Sleek headed men that sleep o' nights,
> Yond Cassius has a lean and hungry look.
> He thinks too much. Such men are dangerous."

They are also seasick, but the reliability of this method of selection is doubtful. Work commenced on both sides of the Atlantic. The urgency of the situation made the task of those studying the problem extremely difficult and I should like to plant the Union Jack firmly at the summit of all knowledge we had on the subject before " D " Day, for though transatlantic workers attacked the problem with vigour and ingenious technique, Dr. Holling of this Hospital, and his co-workers, carried out controlled trials of remedies and it was their work which could have prevented the Normandy landings from being the greatest mass vomit mankind has ever known, if their remedy had been used. On the few ships where it was used, twice the prescribed dose appears to have been given and although no sickness was reported from these craft, sea sickness might have been preferable to what happened.

The method of approach to the problem was first to stimulate the movements of ships and aircraft in the laborarory to see if " apparatus sick " subjects were also travel sick and to try and analyse the causative movements and see if any insight of the mechanism could be found. The laboratory apparatus, soon christened "S.S. Mal-de-Mer" was the Canadian machine. She consisted of a huge see-saw with clamps beds and chairs for subjects, attached here and there, the whole mounted on a base rocking in a plane at right angles to that of the see-saw. She was operated by high powered variable speed electric motors, all in the best traditions of W. Heath Robinson. The results—so complex as to obscure the underlying facts. In this country a stretcher suspended from the ceiling by four pieces of rope was used. Varying the lengths of the

rope, or strapping a chair to the stretcher, gave a variety of body positions with relation to the axis of the "force g changes." The results—simple and instructive.

The two factors affecting sickness rates were, position of the head and character of the accelerations. This fact we can veryify from our own observations. If you look out of the corner of your eye next time you are walking beside a brick wall you will see that you are moving your head up and down about 1½ inches, at the rate of approximately 90 times per minute. This does not cause motion sickness. Although these simple facts are the basis of our present day knowledge of the mechanism of motion sickness, this was not research for its own sake, and the results hardly fighting talk befitting the situation.

The opportunities for mass experiments on therapeutic measures were too valuable and tempting to miss. Accordingly the following method was evolved. Whenever the weather was sufficiently rough, parties of about 70 men from primary training centres—thus willing subjects—were given, one hour before embarkation on motor minesweepers, tablets containing the various remedies under trial. Dummy tablets were used for the control group. These tablets were swallowed under supervision. Elaborate precautions were taken to see that all drugs were given a fair trial by giving them in rotation thereby avoiding groups of friends remaining together in one part of the ship and getting more or less then their fair share of the causative motion. During the trips trained observers moved among the men making notes of their reactions which were afterwards checked against their statements. The efficiency of a drug was measured by the working out from this formula giving the percentage of susceptible subjects protected.

$$\frac{(\%\text{ sick in control group}) \;-\; (\%\text{ sick in test group})}{\%\text{sick in control group}} \times 100$$

Of everthing tested Hyoscine was by far the most effective. In fact 0.6 mg. hyoscine protects about two-thirds of the susceptible subjects and 1.2 mg. protects three quarters, but this dose causes unpleasant dryness of the mouth and slightly decreases sweat output and theoretically should not be given in hot climates. It has been tried out on quite a large scale under these conditions and no cases of heat stroke recorded. The way in which it acts is unknown. Dr. Holling thinks it acts on the internal ear but the balance of evidence points to its acting on the vomiting centre. By now the tide of war was on the turn and workers were able to approach the problem of sea sickness from a less restricted point of view. We have seen that the position of the head is a vital factor. This seems to rule out visual disturbances—anyhow blind people are seasick. It also tends to rule out the possibility of movements of the brain within the skull as possible causative mechanisms. The fact that the character of the accelerations should be so important seems to indicate disturbance of the middle ear.

Nystagmus is a chacteristic feature of stimulation of the semi circular canals and this sign is never seen in cases of travel sickness. However, if we delve a little deeper into the intricacies of the inner ear we find that the incidence of sickness is highest when the acceleration is in the direction in which the utricle exerts its maximum effect. The incidence of swing sickness is high when the "*force g changes*" act perpendicular to a line drawn from the outer canthus of the eye, to the auditory meatus of that side, and when the "*force g changes*" act along this line the sickness rates are low. Furthermore bilateral labyrinthectomy completely abolishes all trace of motion sickness in dogs.

A pertinent observation was made in the middle of the last century by a clergyman who was bringing a party of eight congenital deaf mutes across the Atlantic, presumably for Spiritual treatment at Lourdes. He noticed that none of them was ever seasick. They must have had plenty of opportunity. In them labyrinthine activity was presumably absent.

Should you ever be consulted about the treatment of sea sickness the outlook is not stormy. In fact a strange and baffling calm is to be found at sea for the greater part of the year as was soon found when rough seas were wanted for experimental purposes. Modern drugs are very effective preventatives. A short time ago Gay and Carliner, two American workers, were experimenting

with the drug Dramamine. One of their patients, a woman with hay fever, was so exquisitely sensitive to tramcars that she was always sick on the way to see them. She happened to mention that the Dramimine prevented this. Following this slender lead it was found that 100 mg. Dramamine by mouth every five hours is a 90% cure for susceptibles. Independent workers have found other antihistamine drugs at least acceptable as hyoscine. Should the patient be one of the unfortunate 10%—if male, explain to them that it is a physical disorder not a matter of will power, that Nelson was always seasick in rough weather, and to avoid the alcoholic farewell party. If female, recommend the liberal use of cosmetics to conceal the devastating effects on the complexion of peripheral vasoconstriction. Tell them to lie down and to remember it *cannot last for ever.*

In conclusion I must tell you that I think that only the introductory chapters to our book of knowledge about motion sickness have been written. I should like to see large numbers of subjects anæsthetised to varying degrees and swung to find the extent, if any, of cortical influence in motion sickness. There is a considerable variation in susceptibility and the reaction is complex. This would seem to me to indicate some cortical involvement, or at least something a little deeper than the mere fact that rhythmic macula atimulation causes reflex sickness.

About the Park

Guy's men and women are always interested to read about their own Hospital in strange and foreign journals. Recently we have received a cutting from Connecticut, U.S.A., reporting the interview by a local columnist of an American doctor who, with some friends visited this Hospital. They were greatly impressed by the antiquity of the Hospital with wards " still in daily use after 200 years." An incident which amused them was the flight of an " English sparrow " into the ward they were visiting—a not uncommon happening they were told. Much, however, of the information they gained seems to have been wide of the truth for they thought that " Dr. Guy " must have been a smart chap to make his money from " smuggling Bibles into Sweden." On the subject of the Bibles, they found the names of " Job," " Patience," " Samaritan " most suitable. But then unfortunately they became slightly mixed up between Biblical and present times and, on being introduced to " Scotland Yard's Medicine Man " " famed as medical consultant for England's crime detection bureau " referred to Dr. Keith Sampson." . . . . We wonder who on earth they meant !

Now that summer has come upon us in all its full force our minds become filled with thoughts, summer dresses, buzzing bees, and long cool drinks. Nothing is more pleasing to watch students and nurses in the Park catching a breath of fresh air before returning to their work within the hospital walls—unless of course it is sitting outside oneself. However, it is with regret and disgust that when the lawns are cleared of their human carpet a large quantity of empty cigarette packets, sweet wrappings and bits of newspaper are left to be swirled to and fro by the breeze. No doubt individual readers will each consider themselves innocent of this action, but we ask you now please to put your bits of paper in one of the new receptacles recently provided.

We congratulate H. M. Baird, A. E. R. Buckle and J. B. Parsons all of whom obtained Honours in the April Final M.B. Examination.

ERRATA

The following corrections are necessary in the article in circumcision which appeared in our last issue :

for " braying of horses " read " braying of horns "
for " monotherism " read " monotheism "
for " masculinity of the few " read " masculinity of the Jew."

We tender our opologies to the author—Dr. H. St. H. Vertue.

On Osteoporosis of the Spine with Spontaneous Fracture

By R. U. F. KYNASTON, M.B., B.S.

Backache is a very common symptom and its causes may be legion, but I propose to discuss a particular type of backache which occurs in old people and which is due to osteoporosis of the spine with collapse or fracture of one or more vertebral bodies. The condition is perhaps best called senile osteoporosis of the spine and it appears to be a definite entity which is not to be confused, as we shall see later, with osteomalacia which gives similar X-ray appearances.

The occurence of three such cases in my practice within the last year prompted me to go into the problem.

AETOLOGY

It is of interest to note that Charcot was perhaps the first to describe, in 1863, a painful condition of the spine in old people which he called senile osteomalacia. It is only in the last 12 years or so that osteoporosis has been distinguished from osteomalacia and it appears that it is more common than one would expect. Five series of cases, comprising 53 patients, have been described since 1938, and Bell Jones (personal communication) finds that he sees on the the average about one case in three to four weeks in the Orthopædic Clinics of the Ipswich group of Hospitals. It is more frequent in females and the maximum age incidence is between sixty and seventy years.

Jackson Burrows and Graham, of Bart's, in a paper published in 1945 went into a great many possible causes. They investigated the diets, with special reference to the daily intake of Calcium and phosphorus and the Blood calcium and phosphorus, the effects of habitual purgation, the excessive use of alkalis, deficiency in sunlight, the question specific disease, of achlorhydria, dental caries, and searched for evidence of hypopituitarism, hyperthyroidism, of steatorrhea, hyperparathyroidism, scurvy and chronic diarrhoea, but nevertheless in spite of all this they could only conclude that the condition was one of unknown origin.

Albright et alia in a paper from the Massachusetts General Hospital (1941) thought that osteoblasts were deficient in laying down osteoid tissue and considered osteoporosis to be an atrophy of bone marrow.

SIGNS AND SYMPTOMS

The one constant feature is the backache which is usually in the lower dorsal or lumbar spine. The onset may be acute associated with a fall or sudden vigorous movement, but more frequently it is gradual in onset.

The pain is worse on flexion of the spine and specially when lifting; coughing or sneezing often gives severe pain at the site of the fracture.

Almost always it is worse with activity and relieved by rest, only to recur at once when activity is resumed. Occasionally pain radiates round the chest and abdomen and into the buttocks or thighs.

SIGNS

A kyphosis is usually present at the site of the lesion. The mobility of the spine, when collapse is present, is usually much limited, chiefly because of the muscle spasm. The only other useful sign in some cases is tenderness on pressure of the spinous process of the affected vertebræ.

Neurological signs are usually absent.

PATHOLOGICAL INVESTIGATIONS

In Jackson Burrows and Graham's twenty cases, the blood calcium and phosphorus were on the average normal. There was evidence, however, of a continuous loss of calcium and phosphorus from the body.

X-ray Findings

The chief features are osteoporosis of the vertebral column. Occasionally some is shown also in the pelvis, ribs, clavicles and scapula, but it is most marked in the lumbar and lower dorsal regions.

The other features are wedging of the vertebræ, for collapse is maximal in the anterior part of the body and biconcavity.

It should be mentioned that these features are present also in osteomalacia.

Differential Diagnosis

In discussing this it is probably best to mention briefly some of the more unlikely causes. Such may be Arthritis, which may be excluded if X-rays are taken.

Ankylosing spondilitis and tuberculosis give characteristic X-ray changes, Paget's disease shows high blood phosphatase and hyperparathyroidism shows a high blood calcium and low blood phosphorus. Thyrotoxicosis, renal glycosuria, osteogenesis imperfecta and some cases of Cushing's disease and Kummell's disease are other rare causes.

But there are three conditions which must be carefully differentiated from osteoporosis. The first is secondary malignant deposits in the spine. These of course, can appear without any obvious primary lesion, but the X-ray changes are usually fairly characteristic, for the malignant deposit almost always virtually destroys perhaps one vertebra only and the other vertebræ show no changes. The blood phosphatase is raised. The pain of osteoporosis is almost always relieved by rest but that of secondary deposits in the spine is not.

Multiple myelomatosis is the second condition and this is excluded by sternal puncture and by the absence of Bence Jones protein in the urine. Likewise the bone changes of the leukæmias are excluded by blood examination.

And the third condition is osteomalacia. This is broadly speaking of two kinds. The hunger osteomalacia which is associated with famine and the absence of calcium and vitamin D in the diet. A large number of these cases were reported after the 1914-18 war, particularly in Vienna. This is probably the real nature of the cases first described by Charcot in 1863.

The other type is that associated with pregnancy, so that is hardly to be expected in old people.

Treatment

This is two-fold. In view of the fact that there is evidence of a continuous loss of calcium and phosphorus in these cases, vitamin D permanently, though there is little evidence radiologically of increasing density in the bones. The recommended doses are calcium phosphate 15 gm. t.d.s. and vitamin D 10,000 i.u.

The other method is a spinal brace to be worn permanently so that the spine is in a state of mild extension. Certainly in my three patients these measures have made their lives bearable and almost free from pain.

Summary

The condition of senile osteoporosis of the spine with spontaneous fracture is briefly described. Attention is drawn to the fact that it is more common than hitherto thought.

References

Jackson Burrows and Graham G. (1945). *Quart. Journ. Med. N.S.*, 14, 147.

Albright et alia (1941). *J. Amer. Med. Assoc.*, 116, 2465.

Dalyell et alia (1921). *Lancet*, 2, 842.

Visit to a Spinal Centre

By D. G. E. ALLDRIDGE

ON Friday, 24th March, some twenty Guy's men and women visited the Spinal Centre at Stoke Mandeville Hospital, near Aylesbury, and were shown round by the Director, Dr. Ludwig Guttmann. The party included two surgical firms and two physiotherapists from Dr. Crisp's Department. We travelled by bus and arrived at 1.30.

The round started in the Physiotherapy Department where we saw about a dozen patients with complete paraplegias at various levels from D.4 downwards learning the system of exercises which eventually enables them to walk. They start off in bed in the wards learning to sit up without getting postural dizziness. Then, they practise keeping their balance seated in front of a mirror and doing arm exercises. This feat is accomplished partly by good control of latissimus dorsi muscle and partly by awareness of the postural receptors in the muscle, through which they can later keep their balance with their eyes shut.

Over-development of this muscle, which is almost the only one with which a paraplegic can control his pelvis, and of all the muscles above the lesion is taught by sling exercises: the patient lies down with his pelvis and lower limbs suspended in slings while he steadies himself by holding on with his arms. He learns to swing the lower part of his body from side to side by using latissimus dorsi, and then suddenly stop it on command at any moment.

Some patients are much troubled by spasticity and Dr. Guttmann showed us his device for overcoming this. It was found that muscular fatigue lessens the spasticity so Dr. Guttmann invented a machine with a modified bicycle mechanism, so that the patients feet can be strapped to the pedals which he turns round as hard as he can by winding another crank with his hands. Incidentally this exercises his arms and shoulders.

Good muscular development plays a big part in overcoming the postural hypotension which paraplegics feel on assuming the erect position. When they are well enough to do so, light plaster splints are applied to their knees, toe-raising springs to their feet, and they then learn to walk between parallel bars, supporting themselves on their hands and advancing each leg in turn by raising and rotating their pelvis. This is an astounding feat when one recalls that they have no voluntary movement or sensation at all below the level of the cord-lesion. From parallel bars they graduate to crutches and from plaster splints to light callipers which can bend at the knee for sitting in a wheel chair. Dr. Guttmann pointed out that there are stretch receptors in all the main blood vessels, which contribute to vasomotor tone in paraplegics, and that when tone has recovered, all the tissues are less liable to damage. This concept includes pressure sores and urethal infection from instrumentation. The risk of pressure sores always remains, however, so paraplegics have to learn to shift their position at frequent intervals and eventually this becomes a conditioned reflex.

The Spinal Centre has only 125 beds now for reasons of shortage of nurses, and consequently there is a waiting list of over a hundred and they seldom see a recent paraplegia. On arrival at the Centre most of the patients have large pressure sores which take as much as six months to heal. Dr. Guttmann stressed that these can all be prevented by high standards of nursing and that many cases with bad sores come from even the best hospitals and teaching centres. He heals them by a very conservative régime of meticulous dressings and avoidance of pressure. They are a source of very considerable protein leakage (100 grms. a day) and of sceptic absortion which impairs physical and mental rehabilitation. Urinary tract infection in another serious source of protein loss (50 grms. a day).

Many patients reach the Centre after months in hospital on heavy doses of sedatives including morphia, and with little active rehabilitation. The effect of the pressure sores has been to make them loose weight and appetite and they are often thoroughly demoralised. One of the first steps is to stop

them having sedatives with the exception perhaps of a few veganins, and this alone improves their health considerably after a short period of suffering from withdrawal.

Most of them have had suprapubic cystostomy done and invariably have urinary infection. The bladder is often very contracted and it takes a great deal of skill and patience to close the cystomy, distend the bladder gradually by tidal drainage, and allow the reflex bladder to develop. When this is achieved it is common to see some degree of sensory awareness conveyed by the automatic nervous system so that the patient knows when his bladder is distended. Dr. Guttmann would not perform subrapubic cystostomy in any of these cases, but would prefer intermittent catheterization performed by the surgeon himself with infinate care, for the first few weeks after the injury, then, if necessary, an indwelling catheter could be used with tidal irrigation and without the risks of infection, for sufficient recovery of tone would have occurred to prevent urethal infection. The ideal he aims at is a closed bladder with adequate capacity without infection and with little residual urine.

Spasticity and flexor spasms remain disabling in a proportion of cases and Dr. Guttmann now treats these by intrathecal injection of absolute alcohol which immediately abolishes spasm and all reflexes below the level of the block. Other methods he has abandoned include nerve root sections. These are contra-indicated because the operation is a grave one for the paraplegic valuable muscles are divided in the operative exposure and intrathecal alcohol is lasting and perfectly effective. We were shown a convincing film illustrating this method in several cases.

Occupational therapy and vocational training are not regarded as diversions but as a compulsory part of the treatment and we were shown well-equipped metal work-shops with instructors to teach the techniques of lathe work. Other patients are qualifying as draughtsmen and being placed in permanent posts. There was also a clock assembly shop and a cobblery department which we did not visit.

There are many sports in which paraplegics can hold their own with great personal satisfaction. For instance, they have repeatedly thrashed the medical staff at wheel-chair polo, which I believe was an idea of Dr. Guttmann's. They have regular archery tournaments and can also play billiards, darts, and netball.

Dr. Guttmann also mentioned a number of other aspects of the detailed care of paraplegics. He has had 444 traumatic cases since the Centre was opened six years ago. His mortality in this series, which included some desperately neglected cases is 7%. All his staff in the wards and physiotherapy department find that after an initial prejudice against working on "hopeless cases" they become passionately devoted to the work and cannot be persuaded to give it up. This is perhaps the best expression of Dr. Guttmann's personality and his great achievement.

America Re-visited

By Sir HENEAGE OGILVIE, K.B.E., M.D., M.Ch., F.R.C.S.

(continued)

Monday, 12th.

I drove down to St. Mary's with Gray at 8 a.m. and spent the first hour and a half doing a ward round with Waugh. I was more than ever impressed with the great care that every member of the Clinic spends on these rounds, and on the kindness, frankness, and completeness with which they discuss everything with the patient. I am sure that the chief reason the Mayo clinic is doing more work than ever before ten years after the death of the Mayo brothers, when many wiseacres thought they would drop out, is because everyone realises that they will get a square deal; they will be examined carefully, the results of the investigations will be put squarely before them, they will be advised operation only if it is necessary and likely to succeed and they will pay charges that are reasonably within their means.

We discussed many things. Regional ileitis, of which there were several examples, remains an enigma. Waugh said that during the war there were several apparent epidemics of the disease among American troops. He thinks it can get well without surgery, or after simple short circuit to overcome obstruction. The basis of medical treatment is a high caloric, high vitamin diet, with a periodic check up by X-rays to record progress. He likes the conservative pull-through operation for cancer of the rectum and thinks it suitable for all cases where the growth is two inches or more above the pelvic floor. He removes the bowel down to the muco-cutaneous junction and stitches the mucosa to the skin margin. The pull-through operation only needs three and a half inches more bowel than colostomy, that is the length of the index finger beyond the cervix uteri or the base of the prostate.

Among the cases was an abdomino-perineal resection done some time before, who had come in with intestinal obstruction. The cause was recurrence in the aortic glands involving the colon proximal the colostomy. A transverse colostomy had been done and the glands were being treated with deep X-rays. He discusses malignancy quite cheerfully with his patients, He is doing a number of colon resections for diverticulitis.

I then went to see Gray operating. He was doing two gastro-jejunal ulcers and a stone in the common bile duct. Like the others, he detaches the jejunum from the stomach and sews up the hole transversely: it looks clumsy and leaves a couple of dog ears but it seems to work. He does a full width Polya anastomosis, and drain the duodenal stump. American surgeons generally seem a little nervous about the ulcerated duodenum; they mobilise it less than we do, tend to cut and close right through the ulcer, cover up with anything that comes handy and drain the site of the closure afterwards.

Five minutes after the stomach has been removed, a technician comes into the theatre and says, " you have removed 78% of the stomach," or some other percentage. They have worked out a scale on a number of whole stomachs removed post-mortem, by which they reckon the percentage that has been removed by weighing the whole specimen and then taking the thickness of the muscular coat (presumably at the upper cut edge) with callipers. They look on the result as pretty reliable.

I finished up by going on to the Kahler and watching Pemberton do two thyroids.

In the evening I was very fortunate indeed in being included in Donald Balfour's party at the " Mayo Clinic Folly of 1949." On this night the Clinic is at home to itself. Directors, lift-boys, stenographers, accountants, anæsthiologists, sputum-cell-count technicians, surgeons, electricians, research workers, nurses, painters, statisticians, physicians, radiographers and even psychiatrists, mingling in common revelry. Unfortunately the largest stadium in Rochester (where the night before we had witnessed a game of Professional Basketball in which the leading player earns 30,000 dollars a year) seats only 3,600, and there are 4,000 employees of the Clinic, so that a visitor is very priviledged to be allowed in. The " Folly " was a non-stop revue, in which three skits on the work of the clinic itself, tracing a group of patients on their way through, brought the audience back from their music and dancing that intervened and gave them a chance to laugh at each other. The three scenes were entitled, " First day, or fill out this card and come back tomorrow," " Second day, or have a chair and I'll call you," and " Third day, or would you like to pay now." In a musical interlude two of the most famous abdominal surgeons in America appeared, one as a Slavonic organist with long hair and a blaze of decorations over his chest, the other as a fussy old lady in a fur coat. Many girls have left the lure of Hollywood or the footlights for the attractions of more solid employment at Rochester, so that from this large staff, a team of dancers, " The Rochettes " had been got together, equal to any in London, Paris or New York. As their act finished and the last graceful leg moved backward through the exit, a troupe of men, prominent among them an ex-R.A.F. Anæsthetist, danced in backwards dressed in brassieres, frilly skirts and sock suspenders, and did their stuff. The evening finished with the Mayo Clinic Choir giving choral music and carols, after which the floor was cleared for dancing.

(To be continued.)

Reviews

Materia Medica and Pharmacy for Medical Students. By REGINALD R. BENNETT. Revised by H. G. Rolfe. 5th Edition. Lewis. *Price* 16*s.*

The fifth edition of this book maintains the high standard of its forerunners. Written by a pharmacist, it contains much information not usually found in a book designed for medical students although some of the matter of a purely pharmaceutical character might, with advantage, be replaced by fuller details of "Action and Uses." The Dose Tables should prove particularly useful. In some respects the classification is unusual and reveals its pharmaceutical origin, but this does not detract from the value of the book.

J.M.

The Chemistry and Metallurgy of Dental Materials. By J. CAMPBELL SMITH. 2nd Edition. Blackwell. *Price* 21*s.*

The second edition of this text is essentially a slightly rearranged version of the first, to which brief sections have been added on vacuum investing, the importance of fluorine in dental caries, the new Zelex, sulphonamides and antibiotics. It covers simply and clearly a wide range of topics of dental interest and is a book to be recommended highly for general reading.

F.H.B.
A.D.R.

Lectures on Medicine to Nurses. By A. E. CLARK-KENNEDY. Livingstone. *Price* 15*s.* 6*d.*

This is an interesting addition to the books on medicine for nurses. As the author points out in his preface it is not intended to replace standard text books but nurses will enjoy reading it as a change.

The book would probably make a more universal appeal if the lectures were not so nearly reproduced, as the style and abundant use of analogy without demonstration may confuse the reader. The picture of the patient with the disease is well presented, a pleasing contrast to many books in which the patient occupies so small a place in the description of the disease.

The diagrams, particularly those relating to the heart and blood vessels, are most helpful.

F.T.

Among the Doctors. By ALFRED COX. Christopher Johnson. *Price* 12*s.* 6*d.*

When I heard a psychiatrist enumerate among his patients' symptoms the fact that it took him half-an-hour to cover half a sheet of foolscap with prose, I felt that my turn could not be long in coming now. But Dr. Cox is not in any danger: his time I should put down as less than five minutes. Composition and the niceties of grammar trouble him not, his humour is second-hand, his observation common-place, his matter an amiable prattle about the past and his philosophy "a perfect and absolute blank." For many years he was secretary to the B.M.A., a solemn thought!

H.St.H.V.

Osteopathy and Manipulation. By JAMES CYRIAX. Crosby Lockwood. *Price* 6*s.*

This little book should be of considerable help to the layman, for it gives a clear account of the terms "osteopathy," "bone-setting," "chiropraxy," etc. The revolutionary theories propounded by A. T. Still, the founder of osteopathy, are shown to be unsupported by sound evidence. There is a good account of the failure which confronted the osteopaths in 1935 when they presented a Bill before the House of Lords in an endeavour to secure legal status for osteopathy. Dr. Cyriax wisely proposes that osteopaths should only treat patients referred to them by medical practitioners or, better still, that all manipulative treatment should be carried out by properly trained physiotherapists.

J.B.

ACADEMIC

June		
		Exhibition. Surgical Department. "Thyroid Surgery."
19th.	1.00.	Dr. Hills. Clinical Lecture.
22nd.	12.00.	Mr. K. Hooper. Dental Clinical Lecture. "Emergency Technique Under Nitrous Oxide Anæsthesia." Dental Theatre.
	4.30.	X-ray Demonstration. Gordon Museum.
23rd.	1.00.	Air Marshall P. C. Livingston, C.B., C.B.E., F.R.C.S. Clinical Lecture. "Three Studies in Aviation Medicine—(i) Air Sickness (ii) Courage (iii) Visual Changes in Anoxia."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
24th.	10.00.	Surgical Department. Clinico-Pathological Meeting. Anatomy Theatre.
26th.	1.00.	Mr. Atkins. Clinical Lecture. "Some Experiences at Queen Square."
29th.	12.00.	Mr. L. Willmore. Dental Clinical Lecture. "Abnormal Speech: Causes and Treatment." Dental Theatre.
	1.00.	Mr. Wass. Clinical Lecture. "Swellings in the Groin."
	4.30.	X-ray Meeting. Gordon Museum.
July		
		Exhibition. Surgical Department. "Rectal Bleeding."
3rd.	1.00.	Mr. Cann. Clinical Lecture.

SPORT

June		
24th.	2.30.	Cricket 1st XI *v.* Metropolitan Police. (H.O.P.)
25th.	2.30.	Cricket XI *v.* R.N.V.R. (H.O.P.)
July		
1st.		Annual Sports Day.
2nd.	11.30.	Cricket XI *v.* Bognor Regis. (Away)

Sport

GUY'S SPORTS

The Guy's Sports will be held at H.O.P. at 3 p.m., on Saturday, July 1st. Besides the usual events, there will be an Inter-Hospital Medley Relay, Children's Race, Ladies Events, Housemen's Hundred, "Borough Basket Race," Sack Race, mixed Three-legged and a Tug-of-War between Medical and Dentals. The various Clubs are running side shows and the evening will conclude with a dance at H.O.P. Students, parents, friends and Guy's men, past and present, are cordially invited to this second post-war Sports.

CRICKET

Guy's *v.* Wadham College

At Oxford.

20th May, 1950.

Result : Lost—Wadham College 163. Guy's 125.

Guy's

D. M. E. Allan, c Giffard b Surendra ..	34
N. R. Cooke, c Armitage b Surendra ..	13
P. L. Pickett, b Blake	7
D. M. Lipington, c Cory b Mara ..	30
R. Gibbons, c Hughes (M.) b Surendra ..	3
J. J. Hall, run out	2
H. Bissoon Dath, c Rhys b Blake ..	0
T. Smith, l.b.w. Blake	12
W. Howells, c Surendra	16
H. R. Prentice, b Surendra	0
A. F. Jones, not out	5
Extras	3
	125

Bowling : T. Smith, 3 for 52; P. L. Pickett, 3 for 36; H. Bissoon Dath, 1 for 15; D. M. E. Allan, 3 for 19.

We should have won this game. Wadham won the toss and began to bat at 12 o'clock on a wicket pitched just off a rain soaked square.

The fielding was good but not quite up to the standard which we have been used to expect of late. Considering how much the wicket and general conditions favoured the batsmen, the bowlers did extremely well although they would be the first to admit that perhaps we were a little lucky in getting the home side out for 163.

Allan (34) and Cooke (13) started us off well and the first wicket only fell after 48 had gone up. After this the situation deteriorated rapidly. Any side likes to get a wicket but when a batsman "gives himself up," who can blame a bowler being delighted to accept the offer! Virtually this is what we did and in doing so flattered the bowling. There was a lack of concentration which was made all the more obvious by a delightful defensive innings by Lipington (30)—quite one of his best, but even that couldn't save us the game and the innings closed at 125.

Guy's 2nd XI *v.* Chartered Banks

At H.O.P.

20th May, 1950.

Result :

Lost—Chartered Banks 114. Guy's 2nd XI 85. Matthews 22. Tweed, 11-1-23-8.

Guy's 2nd XI *v.* Crofton Park

At H.O.P.

29th May, 1950.

Result :

Lost—Crofton Park 165. Guy's 2nd XI 94. Martin 37. Fearn 8-2-17-3.

Guy's 2nd XI *v.* Inns of Court

At H.O.P.

3rd June, 1950.

Result :

Lost—Guy's 99. Inns of Court 100-3. Cahill 37 not out.

Guy's *v.* Bognor

At H.O.P. Draw.

Guy's 202-4. Bognor 84-6.

Guy's

D. E. Blake, run out	80
D. M. E. Allan, c Cooper	69
K. W. Gray, b Cooper	3
D. M. Lipington, not out	21
A. F. Jones, c Blyth b Dunlop	0
M. Gibbons, not out	19
M. C. Gilbert did not bat	
W. Howells "	
H. Bissoon Dath "	
T. Smith "	
M. Croft "	
Extras	10
	202

Rain stopped play.

Bowling : T. Smith, 10-2-14-2; K. W. Gray, 10-3-34-2.

Guy's won the toss and batted first. With Blake and Allan in their best form, Jones found himself able to declare the innings closed at 200 for the loss of only 4 wickets.

Smith, Gray and Allan soon found their length and the Bognor batsmen were in trouble. Unfortunately with only half an hour to go a steady drizzle put a stop to further play.

Guy's *v.* Crofton Park

At H.O.P.

29th May, 1950.

Result : Won—Crofton Park 213. Guy's 214-6.

Guy's

D. E. Blake, c Orford b Bishop	57
D. M. E. Allan, l.b.w. Bishop	58
P. L. Pickett, not out	66
D. M. Lipington, b Bishop	1
K. W. Gray, b Bishop	9
M. C. Gilbert, b Bishop	11
A. F. Jones, not out	1
H. R. Prentice, b Bishop	10
E. R. Gibbons did not bat	
W. Howells "	
T. Smith "	
	213

L. Bishop, 21-2-72-6.

Bowling : T. Smith, 21-4-55-3; D. M. E. Allan, 14-2-41-3; K. W. Gray, 22-4-75-2; P. L. Pickett, 9-1-36-2.

Crofton Park won the toss and batted first on a good wicket. For the first hour the runs came rather more than steadily despite the fact that the fielding gave little away. At 86 we breathed a little more freely when Gray moved one sharply away and Allan took a good catch in the slips. We were a little worried to discover that if anything this increased the rate of scoring and 150 was on the board with only five minutes to go before lunch, when Pickett bowled Bishop. This was probably the turning point in the game for this batsman had forced the pace and had 107 to his credit out of the total score.

The rather formidable total so far amassed did not seem to worry the bowlers in the slightest and after lunch they set about their task in no mean manner, to such affect that Crofton Park were all out for 213. Only four bowlers were used, Gray, Smith, Pickett and Allan and despite the fact that at one time or another they each received heavy punishment, they kept a good length and reaped the natural reward.

Blake and Allan again gave us a good start and 93 was on the board before Blake was caught behind the wicket. Allan, carrying on with Pickett as his partner, treated the bowling with some considerable disrespect! He eventually was l.b.w. at 138. Picket carried on the good work playing his best innings of the season, and although he found some difficulty in finding a partner to stay with him, the Crofton Park total of 213 was eventually passed for the loss of 6 wickets. An extremely creditable performance.

Guy's *v.* Hampstead

At H.O.P.

3rd June, 1950.

Result : Won—Hampstead 121. Guy's 122-4.

Guy's

D. E. Blake, b Smith	23
D. M. E. Allan, l.b.w. Fitzgerald	3
P. L. Pickett, not out	54
A. F. Jones, c Blayn b Smith	4
K. W. Gray, b Fitzgerald	1
D. M. Lipington, not out	35
N. R. Cooke did not bat	
H. Bissoon Dath "	
W. Howells "	
T. Smith "	
W. Tweed "	
Extras	2
	122

Bowling : K. W. Gray, 9-2-18-4; D. M. E. Allan 7-1-13-3; W. Tweed, 5-0-15-2; H. Bissoon Dath 3-0-26-1.

Guy's *v.* John Tanous

At H.O.P.

4th June, 1950.

Result : Won—Guy's 284-7. John Tanous 134.

Guy's

D. E. Blake, b Piggott	99
D. M. E. Allan, l.b.w. Bell	45
N. R. Cooke, c Prince b Wheatland	10
A. F. Jones, b Dagg	51
D. M. Lipington, c Cashmore b Dagg	41
E. R. Gibbons, b Dagg	9
M. C. Gilbert, c Springall b Dagg	0
H. Bissoon Dath, not out	7
H. Meyer, not out	10
T. Smith did not bat	
W. Tweed "	
Extras	12
	284

Bowling : H. Bissoon Dath, 7-1-33-5; D. M. E. Allan, 12-3-24-3-; W. Tweed, 10-3-21-1; T. Smith, 15-1-50-0.

Guy's *v.* Stoics

At H.O.P. Result Lost.

At H.O.P.

17th May, 1950.

Result : Lost—Guy's 212-8. Stoics 213-3.

Guy's

D. E. Blake, c Thomas b Sherwood	73
D. M. E. Allan, c Turner b Levy	2
P. L. Pickett, run out	5
D. M. Lipington, b Evans	39
N. R. Cooke, c Phillips b Evans	53
H. Bissoon Dath, l.b.w. Levy	0
A. F. Jones, b Evans	6
W. Howells, st. Phillips b Evans	27
J. J. Hall, not out	4
R. Gibbons did not bat	
T. Smith "	
Extras	3
	212

Bowling : Smith, 12-3-35-2; Pickett, 10-0-45-1.

Hospital Information, etc.

British Dental Students Association
ANNUAL CONVENTION
at
Guy's Hospital, London Bridge, S.E.1.
24th-28th July, 1950

PROGRAMME

Monday, 24th July

Visitors will be received on arrival in the Committee Room, Medical School, Guy's Hospital, London, S.E.1. Visitors are asked to arrive after 2 p.m., if possible.

2.30 p.m.	Visitors will be shown over the Hospital and School.
3.45 p.m.	Tea in College.
4.15 p.m.	Official Welcome by Mr. F. S. Warner, President of the B.D.S.A., in the Dental Lecture Theatre.
4.30 p.m.	Executive meeting for members concerned.
6.00 p.m.	Cold Buffet in College.
8.30 p.m.	"Ice Capades of 1950" at the Empress Hall, Earl's Court.

Tuesday, 25th July

10.00 a.m.	Lecture in Physiology Lecture Theatre—Mr. F. N. Doubleday, F.D.S., M.R.C.S.—subject "Some Chemical and Physical Properties of the Silicate Cements."
11.30 a.m.	Film in Physiology Lecture Theatre Mr. K. Pringle, L.D.S.—subject "Serial Study of Occlusion from Birth to Ten Years of Age."
1.00 p.m.	Lunch in College.
2.15 p.m.	Annual Photograph.
2.30 p.m.	Annual General Meeting.
4.00 p.m.	Tea.
4.30 p.m.	Resume Annual General Meeting (if necessary).
Evening	Free.

Wednesday, 26th July

10.00 a.m.	Coach tour of London.
1.00 p.m.	Lunch in College.
2.30 p.m.	Tennis Tournament at Honor Oak Park (Guy's Sports Ground) or River Trip from Westminster to Greenwich, return.
6.00 p.m.	Cold Buffet in College.
Evening	Theatre—All Star Variety at the London Palladium, 8.30 p.m. *or* "Latin Quarter, 1950" Vic Oliver at the London Cassino, 9 p.m.

Thursday, 27th July

10.00 a.m. to 5.30 p.m. approx.	Visit to Windsor Castle. Travelling there and back by Coach. A guide will be in attendance. Lunch at Windsor.
Evening	Free.

Friday, 28th July

10.00 a.m.	Lecture in Physiology Lecture Theatre by Dr. E. Gwynne Evans, Research Fellow, Upper Respiratory Research Unit—subject to be announced later.
11.30 a.m.	Lecture in the Physiology Lecture Theatre by Dr. Keith Simpson, Reader in Forensic Medicine, University of London, subject, "Crime and the Dentist."
1.00 p.m.	Lunch in College.
2.30 p.m.	Executive Meeting. Arrangements can be made for other members to visit the Tower of London, Kew, or other places of interest.
6.30 p.m.	B.D.S.A. Annual Dinner—Bridge House Hotel, London Bridge.
7.00 p.m. to 11.30 p.m.	B.D.S.A. Annual Dance—Bridge House Hotel, London Bridge.

As Guy's is the "Host" Hospital this year, it is hoped that as many dental students as possible will support the above events. Application should be made as soon as possible to the B.D.S.A. representative, Mr. A. G. Orme.

Accommodation is still required for some of the foreign students attending the Convention, and anyone who can help in this way should get in touch with Mr. D. Neill, Hon. Sec. of the Dental Society.

APPOINTMENTS

Applications are invited for the following appointments to the Junior Staff for the session 1950-51 :—

Department of Psychological Medicine—Registrar (5 sessions per week)

Ophthalmological Department — Registrar (2 sessions per week)

Neurological Department—Registrar (whole-time)

Forms of application obtainable from the Dean and should be lodged in the Medical School Office not later than **15th July, 1950.**

Assistant to the Director of the Department of Obstetrics

Forms of application obtainable from the Dean and should be lodged in the Medical School Office not later than **30th June, 1950.**

PAPERS BY GUY'S MEN

Bishop, P. M. F. Obesity, An address before the Devon and Exeter Medico-Chirurgical Society. *Lancet*, 1950, i, 957.

Bishop, P. M. F. and others. Further Observations on the Potency of Œstrogens. Clinical Assessment. *Lancet*, 1950, i, 848.

Blackburn, Guy. Diseases of the Thyroid. *Annals Roy. Coll. Surg. Eng.*, 1950, **6**, 235.

Campbell, Maurice and another. Radiological Features of Enlarged Bronchial Arteries. *Brit. Heart J.*, 1950, **12**, 183.

Campbell, Maurice and Suzman, S. Transposition of the Aorta and Pulmonary Artery. *Brit. Heart J.*, 1950, **12**, 201.

Clarke, C. A. Asthma in Childhood, An Unscientific Experiment. *Practitioner*, 1950, **164**, 441.

Clarkson, Patrick. Irradiation and Diathermy Necrosis Right Breast with Intractable Pain. Treated by Excision of Ulcer and Transference of Left Breast with Dermatome Graft to Secondary Defect. *Proc Roy. Soc .Med.*, 1950, **43**, 313.

Craig, R. N. The Role of Mental Disorders in the Causation of Crime. *Med. Pr.*, 1950, **223**, 393.

Cutler, Robert. Accelerated Acrylic Materials. A Preliminary Review. *Brit. Dent. J.*, 1950, **88**, 184.

Cutler, Robert. Industrial Electric Motors suitable for Dental Purposes. *Brit. Dent. J.*, 1950, **88**, 218.

Davies, E. R. and another. Vesical Carcinoma with Bilharzia. *Brit. Med. J.*, 1950, i, 1114.

Douthwaite, A. H. and Finnegan, T. R. L. Vasodilators in Peripheral Vascular Disease. *Brit. Med. J.*, 1950, i, 869.

Evans, Philip. Refresher Course for General Practitioners. Infant Feeding. *Brit. Med. J.*, 1950 i, 1128.

Forman, L. and another. Chronic Papular Dystrophic Dermatosis with Nail Changes ? Lichen Planus. *Proc. Roy. Soc. Med.*, 1950, **43**, 171.

Forman, L. and Holling, H. E. Ulcers of Foot with Congenital Arteriovenous Communication of the Right Lower Limb. *Proc. Roy. Soc. Med.*, 1950, **43**, 171.

Hallpike, C. S. and another. Observations on the Pathological Mechanism of Conductive Deafness in Certain Cases of Neuroma of the VIII Nerve. *Proc. Roy. Soc. Med.*, 1950, **43**, 291.

Harding, H. E. Notes on the Toxicology of Cobalt Metal. *Brit. J. Industr. Med.*, 1950, **7**, 76.

Harding, H. E. and another. Beryllium Granulomata in the Lungs of Rats. *Brit. J. Industr. Med.*, 1950, **7**, 70.

Hawkins, C. F. Renal Dysplasia in a Family with Multiple Hereditary Abnormalities including Iliac Horns. *Lancet*, 1950, i, 803.

Holling, H. E. and Zak, G. A. Cardiac Catheterization in Diagnosis of Congenital Heart Disease. *Brit Heart J.*, 1950, **12**, 153.

Hollis, P. W. T. Streptomycin—its uses and limitations in Treatment. *Med. Pr.*, 1950, **223**, 364.

Housden, Leslie. The Bearing of Parentcraft-Teaching on Social Welfare. *Med. Pr.* 1950, 223, 471.

Mann, W. N. Obesity and its Treatment. *Practitioner*, 1950, **164**, 436.

Martin, J. K. Retrolental Fibroplasia Occurring in Twins. *Proc. Roy. Soc. Med.*, 1950, **43**, 171.

Musgrove, John. Inhalation Therapy in Sinusitis. A Chronic Catarrh. *Brit. Encycl. Med. Pract., Interim Suppl.* No. 92, May 1950.

Oliver, Leslie C. Surgery in Parkinson's Disease. *Lancet*, 1950, i, 847.

Owen, R. D. The Problem of Hypopharyngeal Carcinoma (abridged). President's Address. *Proc. Roy. Soc. Med.*, 1950, **43**, 157.

UNIVERSITY OF LONDON

Third (M.B., B.S.) Examination for Medica Degrees
April 1950
Honours

*H. M. Baird
†J. B. Parsons
*A. E. R. Buckle
*Distinguished in Hygiene and Forensic Medicine
†Distinguished in Surgery.

J. H. Apted	G. A. Lawrence
D. M. Carnegie	E. C. Lewis
J. C. B. E. Carreras	R. L. Luffingham
J. T. Cecil	R. C. Michell
D. G. Chalmers	D. S. Noble
M. B. Conran	T. M. Owen
M. P. Coplans	J. A. Payne
A. A. Craigen	G. F. M. Pierce
E. R. Davies	A. M. Reader
F. G. Ellis	T. I. Rowland
A. T. T. Forrester	D. J. Rudman
R. C. Greenberg	J. A. W. Scott
T. S. Hart	P. A. Skinner
K. R. Heber	P. R. Sowerby
A. L. Jeanes	D. E. Sturdy
J. W. Hughes	M. G. Thompson
I. G. Johnston	W. H. Watson

ROYAL COLLEGE OF SURGEONS OF ENGLAND

April 1950
F.D.S.

P. F. Gillett	E. H. Cooper

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.
April, 1950
Second Examination

R. R. Alsop	C. G. E. Harber
R. L. Batty	D. K. Hardy
A. E. Castle	R. A. Harper
J. A. P. Darvell	R. G. Kettle
G. A. Davis	E. T. P. Thompson

Old Regulations
M. Woolf

PASS LIST

SOCIETY OF APOTHECARIES OF LONDON

Final Examination.
May, 1950.
Surgery
*A. H. R. Hewett-Clarke
Midwifery
K. D. Hernaman-Johnson
*has completed the Examination

APPOINTMENT

G. R. W. N. Luntz, M.R.C.P., has been appointed Assistant Physician, Hammersmith Chest Clinic, Hammersmith Hospital, Ducane Road, London, W.12.

UNIVERSITY OF LONDON TRAVELLING FELLOWSHIP

J. S. Pegum, M.R.C.P., M.B., has been awarded a post-graduate travelling fellowship by the Governing Body of the British Postgraduate Medical Foundation for 1950-51 tenable for one year.

CHANGE OF ADDRESS

W. Mark Brown, M.D., F.R.C.S., of New Zealand. 32 Harcourt Terrace, London, S.W10 (until September 1st, 1950).

G. R. W. N. Luntz, M.R.C.P., London House, Guilford Street, London, W.C.1. (Tel. TERminus 6270).

R. D. W. Stileman, L.D.S., Stedham House, 34 Ewell Road, Surbiton, Surrey.

BIRTHS

BROUGHAM.—On April 26th, 1950 to Teresa, wife of Lt.Cmdr. M. J. Brougham—a daughter (Rosemary Ann), a sister for Gillian and Michael.

CAMPBELL.—On June 3rd, 1950 in Bristol, to Mary, wife of A. M. G. Campbell, D.M., F.R.C.P.—a son.

DAVIS.—On May 25th, 1950, to Hope, wife of Colin Davis at Hartfield, Sussex—a daughter (Anthea, Campbell)

INGRAM.—On June 8th, 1950 at 9 St. Leonards Road, Thames Ditton, Surrey, to Mary (née Woodhams) wife of Frank Ingram, a brother for David and Caroline. (Robert, John)

MUNRO.—On May 22nd, 1950 at B.M.H., Klagenfiest, Austria, to Olive, wife of Ian Munro—a son Andrew Stephen Hoyle.

PLATT.—On June 8th, 1950 in Nuffield House, to Andee (née Morrison) wife of Manfred Platt, M.R.C.P., L.D.S.—a son (Lawrence Guy).

PLOWMAN.—On June 3rs, 1950, at the Shiel Nursing Home, Weybridge, to Pearl, wife of Robert David Plowman—a son (Piers Nicholas).

MARRIAGES

RAHILLY—BLOWS.—On May 6th, 1950, at Upper Norwood, London, David M. Rahilly, M.R.C.S., L.R.C.P., to Beryl Kathleen Blows.

DEATHS

PIKE.—On May 6th, 1950, Douglas Reginald Pike, M.A., M.B., B.Ch., of Glenwood, Stevenage, Herts.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1616 *1st July, 1950* *Ninepence*

PASSIM

IT is an old and possibly over-harped theme to which we return, namely, the place of the preclinical student in the scheme of medical education. At Guy's, and for that matter at most of the London teaching hospitals, provision is made for the majority of entrants to gain their learning of the basic sciences within the precincts of that institution in which they will continue to pursue their more applied medical studies. The reason for this state of affairs is partly historical, partly convenience and, to some extent, rational. The advantages so derived, we are told, include continuity of syllabus, loyalty, early and longer familiarity with the other figures and personalities of the hospital, closer liaison between preclinical and clinical departments and a maintenance of tradition.

Fact-finding committees have filled pages of minutes on this subject, while numerous august and revered individuals have pronounced their views upon it. We nevertheless presume to emphasise certain features. In the first place, we wonder whether the man who comes up from Oxford or Cambridge is any less devoted to Guy's because he feels some service and affection towards his old college. During the three years that the pre-clinical student normally spends in the Medical School it is difficult to see whether he really gains in acquaintance with the noble figures of the place, medical staff or nursing. Indeed, it is doubtful whether he becomes absorbed into the Hospital at all, as distinct from the Medical School. Finally, the extent of professional association between clinical and preclinical workers is still very much open to question; sceptics have observed that it could scarcely be less with any other arrangement, geographical or administrative.

There remains to be considered one formidable disadvantage. The young, aspiring doctor, once he has decided upon his course for life, is sent into a Medical School where he is absorbed in his technicalities all day, eats, drinks, frolics and plays exclusively with others of the same devotion and retires at night to his own rooms or lodgings where, by sheer force of circumstances, he may concern himself further with the texts of his calling. Granted many students have other interests and diversions and all credit to their teaching staffs and their own associations for the way in which these are encouraged. Yet so much more is to be gained, and not only during the so-called formative years, by mixing with others of entirely different persuasion. Once in the wards the student has time for little else besides work. Before that, therefore, he should be given every opportunity to meet and appreciate the wealth and wonder of the world and all its manifold arts.

What is more "the traditional university life that provides more than mere cramming depends on the association together of students in reasonably close residential proximity. But the accommodation for British students that would make this possible is lacking—particularly in London." We believe that a satisfactory doctor requires more than a good grounding in surgery and physic. In general practice—and that, after all, represents the main body of medicine which is of any avail, for the surgeons, physicians, radiotherapists, psychiatrists and all their like of specialised intention may perform the greatest of miracles but they seldom restore patients to health—the doctor must be not only scientifically expert but also fully understanding of human nature and the perplexity of ways in which this can express itself. In London especially, active measures must be taken forthwith if all the undesirable attributes of a "Redbrick University" are not to prevail.

The Care of Children

By LESLIE HOUSDEN, O.B.E., M.D.
Advisor on Parentcraft, Ministry of Health.

A Lecture delivered at Guy's Hospital Medical School on Thursday, June 1st, 1950

LADIES AND GENTLEMEN,—I am very glad to have this opportunity of speaking to an audience such as this on the care of children. The care of children to-day is often wrong and inadequate and a possible way of improving matters is through future general practitioners. My work takes me to various parts of the world. Wherever children are in trouble I go if I can and try to persuade people to take better care of them, but none of us must ever look so far afield as to be oblivious to what is going on in our own street. I could tell you of things happening to children abroad which would horrify you, but there is enough mismanagement and neglect and cruelty in our own country to occupy a full hour's lecture.

I want to tell you something about the condition of children in this country today and then to suggest how that condition might be improved. We might start with the Curtis Report. This was the report of a committee under the chairmanship of Miss Myra Curtis on children who were deprived of normal home life. There were actually 125,000 children implicated—a large number in a country of child lovers. These children were deprived of normal home life because they had been physically removed from home for various reasons, most, though not all, bad. A few were removed because they were mentally deficient, others because they were physically handicapped and others again because they were war orphans. If these three classes are deducted, the total removed for ill-treatment in their own homes is found to be about 100,000. The Curtis Committee knew that children could be deprived of normal home life whilst still living in their own homes, but they were asked to deal only with those who had been taken away into various institutional homes and schools, or placed with foster parents.

Last December in the House of Commons it was proposed that another committee should be set up to look into the situation of children deprived of normal home life without having been physically removed from their homes. A departmental committee is now looking into that matter to see how it can help those who are neglected, ill-treated and abused, while still living at home with their parents.

The third group we might mention are the children of divorced parents. Divorces are now very numerous. There were 57,000 in 1947 and if we reckon 1.2 children per family, we find that over 60,000 children were deprived of normal home life that year because the parents had separated. That number does not include the children of unsatisfactory marriages which were not dissolved.

Then there are the illegitimate children. The number of these has gone down a little. In 1945 they numbered 61,000 ; in 1947 only 47,000, but there are still round about the 50,000 mark each year. The number has gone down, possibly because people are using contraceptives more effectively, but there are 50,000 or so children a year ready to form the material for another Curtis Committee when they are a little older. It is true that some will be wonderfully looked after by their unmarried mothers who will bring them up as happily as circumstances permit, but most of them will be condemned to miserable lives. They will be unwanted and will swell the numbers of children who are chronically unhappy in this country.

Next there are the juvenile delinquents—about 50,000 each year. These are not happy children ; if they were happy they would not be delinquent. The things they do are often not very serious. They steal and destroy and enjoy themselves in the process. Many of them do it, as they say, for " fun and excitement." That fun and excitement should be provided for them in other ways. They are neglected by their parents, either intentionally or through ignorance, and they cannot by any means be called happy.

The N.S.P.C.C. deals, in rounds figures, with about 100,000 children every year. Some of these are most cruelly ill-treated. The worst cases are usually written up by the Press.

But there is another group with whom you will all come in contact, and those are the ailing children—children who should not have lost the health with which they were endowed when born. I have been a children's doctor for 25 years and a large part of my work has been dealing with children who should not have had to come to me. They should have been kept well. They were well at birth, but through the ignorance and general mismanagement of their parents they have acquired all kinds of digestive and nervous disturbances. They are a very large group indeed—far larger than any of the others I have mentioned. It is interesting to think of this, because we crow so much about the way we look after our children and the measures we take to maintain their health and to educate them. It is a good thing always to look at the results.

There was an illuminating figure given a few weeks ago in the Annual Report of the Chief Constable of Herefordshire, which said that out of 123 young men wishing to join the County police service only 18 could be accepted. In the rest the standard of education or physique was too low. Thus when it came to getting into the Herefordshire police force over 80 per cent. of the children, educated and cared for by the State, were of too low a standard to gain admission. That is a figure which might well be printed in much larger type in the Press.

Why have we got this vast number of children in the country who are so badly used? We know that more and more people are interesting themselves in the children and that more and more are being appointed and paid to care for them. Many people are engaged in telling parents what they ought to do, others are doing it for them. Yet, despite the large increases in numbers of these social workers of all kinds, the state of the children does not improve. On the national scale the thing is certainly not a success. We cannot really tell what the actual state of things is by going to the child welfare centre for there we get only the best. I spend some of my time in congested districts, more conveniently called slums, and there one sees the children who never go to the infant welfare centres and the mothers who will not be bothered to take them. That is the place to look for unhappy children.

It is quite common nowadays for people on platforms to repeat the same remarks over and over again.

One of these concerns the beautiful English babies in their prams. Of course they are beautiful becuse they have good mothers, but the babies that we should be looking at are not the ones in prams or welfare centres, but those that are left at home and in the streets, even the ones who go to the out-patients' departments of hospitals. Do not lay too much store by statistics. Go and look at the children. Nothing we do for children will prosper if their homes are bad.

The things taught to children at school can be increased in value or rendered valueless by the parents at home. A schoolteacher once took a mixed class of 50 or 60 young children in Scripture, and thought she would start with the Creation. At the end of the lesson she said, "When you get home ask your mother for a Bible and look at the beginning of it. You will find what I have said is all true." When one of these little girls got home the health visitor was present. The little girl, still enthralled by the story of the Creation, asked her mother for a Bible. The mother flew into a rage. She said she had not got a Bible, never had one and did not want to hear any more of that sort of talk. What good can be done at school if parents are in active opposition?

What are the causes of bad homes? I think first we ought to mention housing, because the housing in the country is a disgrace. It is not only because of family congestion and material disrepair, because if one goes through slums from room to room—that is to say, from home to home, because so often each family has only one room, and the mother and father and several children and any animals they have all live in this one room, with perhaps one communal tap for several families—one will find that the actual conditions of the families

vary. One will live under appalling conditions and the next will be, all things considered, quite a happy family. It does not altogether depend on the structure of the house, but it does depend very much on living with other people. If a family lives as a family together, they will often be found to be happy, but if in the house there is a mother-in-law or grandparents it becomes very difficult to bring up the children.

Only a few weeks back I had a letter from a county medical officer of health asking if a small patient might attend the child guidance clinic. The family had a very nice little council house, but the mother and father and the little girl in question were living with the father's parents. I was present when both the father and mother were born, I knew them all well and they were very nice people. But when the little girl arrived things became very difficult, because there were only two rooms and the grandparents occupied the rest of the house. The mother and the granny would each alone have brought the child up well, but each had a different way from the other, and the result was the temper tantrums of the child, which made her a suitable patient for the child guidance clinic. I could have told them that the child's temper tantrums were nothing compared with those of the granny ! But now the family has moved into another house by itself and the clinic is no longer needed.

In speaking of housing therefore I do not mean only bad structural conditions but the bad conditions under which many people live in their relationships with one another. Anybody who tries to tell others how children should be brought up should always remember that what is recommended at lectures is usually only possible when conditions at home are normal. They are not normal when young parents cannot bring up their children without interference from others.

Another case of bad homes is bad parentcraft and that is my chief interest in this subject. If parents looked after their children better there would be far fewer social difficulties. It is very interesting to consider juvenile delinquency from that point of view, for it is my belief that every case of juvenile delinquency in a mentally normal child is due to deficient parentcraft. That is a subject we cannot go into now, but I have made that statement in many places and no one ever contradicts it. It would be quite easy to refute, if it could be refuted. All that is necessary is to mention one case where juvenile delinquency has not been due to deficient parentcraft, but no one has ever done that, and my belief is that nobody can do it. I know that the parentcraft will sometimes need to be of a very high standard, but that does not alter the contention.

Juvenile delinquency as often as not is plain stealing, for which many reasons are given. One seems very obvious. If a child has just drunk its tea at home out of a mug with the initials of the local railway on it who is left to tell him that it is wrong to steal ? If he stirs his tea at home with a Lyons' teaspoon it is not very easy to impress upon him the evil of stealing. To find out more about these things I wrote to Waterloo Station to asked how many mugs and cups were lost. They replied that, including breakages, they lost about 7,000 a week.

Well, there you are. If you don't want children to steal the best thing is to set them an example. Another point in this connection is the necessity to rear children to be thoughtful for other people. Sometimes in approved schools I have asked boys, " When you pinched the bundle of laundry off the bungalow steps, did you ever think that the people inside might be greatly distressed because of its loss ? " Not one had ever thought of that at all. It had never occurred to them that they were hurting somebody else. Parental example and general parentcraft are most important in saving the child from juvenile delinquency.

In 1941 the President of the Board of Education and the Home Secretary convened a conference to consider juvenile delinquency and to decide how it was to be reduced. The conference made recommendations which were printed and spread broadcast, and presumably acted upon. The net result was that juvenile delinquency increased to such an extent that the same two Ministries called another conference last year, and I suppose will call yet another in another eight or nine years time. The fault is that so few ever think about delinquency

until it is actually established. You cannot prevent something which has already occurred.

Sometimes people have said, " What can you do in the case of the home where the husband is beating his wife and the child is running loose in the streets ?" You cannot do anything at all, because it is too late. In the family cycle there is always a time when the child is not delinquent, when the parent is not a bad parent and when the family is not a problem family. If we want children to be reared to a higher standard, physically and morally, we must help those who are going to have babies before they actually have them.

What might we reasonably expect from a parent ? First surely, that every child should be wanted. In these days it is a terrible thing that a child should be brought into the world unwanted. There will always be a certain number of unwanted children, for however cheap and convenient contraceptives may be, such agents as alcohol will tend to prevent their use, but today there are so many of them. That is the dreadful fact.

In 1947, 1 in every 8 children born in England and Wales was conceived out of marriage. That figure means that many conceptions were unintentional, and surely it is presumption—to use the mildest word—to call a child into the world without being quite certain that one wants it and is prepared to take all possible means to ensure its happiness.

There are tribes in the world who do not know the connection between sexual intercourse and the birth of children. There are also people in this country with the same failing. In the first case it is due to ignorance, in the second to thoughtlessness. Thus the baby is born into a state of misery, which seems as great a crime, as later it would be to ill-treat it physically. Every child should be wanted and its expectation of happiness maintained.

We hear many people say to-day how the welfare of children has improved. They think of the days of Dickens and point out how badly the children were served in his time and how much better things are now. And so they are. But that is not the comparison which should be made. We should compare the children to-day with what they might be, compare those not having a good time with our own children who have such a wonderful time, and then we should see how much is still to be done.

Parents should be more positive in the way they care for their children. They are often too negative. If the child is not actually delinquent, not demonstrably unhappy, not noticeably ailing, it is considered to be alright. That is not the criterion. He should be bubbling over with happiness, expecting something good to happen every minute.

It is important that the next generation of parents should be told some of these points so that when they have children they can start to bring them up in the right way, maintaining them as blessings instead of them becoming nuisances as they often do.

The next generation of parents who will be the fathers and mothers of the nation's children within a very few years are now at school. They are sentenced to a term of education until they are 15—soon it will be 16—and later at the County Colleges it will be 18, so they might just as well be told something that will make them happy. We take a lot of trouble with young people at school. We test their aptitudes to ensure their employment in the work most congenial to them, and then suddenly they fall in love and marry and start an existence for which they have had no preparation whatever.

Only a few weeks ago I went to see a little girl with measles, who had a large wooden engine by her bed. It had been made by her daddy. On asking where was daddy, the mother said, " He's gone ; we've left each other." The mother was 20, the child perhaps 20 months, and the father was gone. There was a child likely to have a miserable time.

Two nice, good-looking people in my town married and became parents, and I was quite horrified, when the baby was about 20 months old, to learn that the husband had gone off with another girl.

It would not matter if there were no children of such a marriage. If however the married couple have a child they should stay together and bring it up. It would be well if young people, before they get married, could be

given some idea of what a wonderful experience it is to be a member of a happy family. As a member of a County Education Committee, I press the needs of parentcraft teaching. I was told that young people would not like it, so we selected four youth clubs, not the easiest you may be sure, and I gave six lectures at each to prove how much the young people enjoyed it. I was certain that they would. It is such a fascinating subject.

There are other things that must be taught. Much of the trouble for newly married people lies in the fact that they are so desperately worried. They have a baby and are worried to death by it. In a book entitled " How to raise a healthy baby," the opening sentence runs " The birth of a baby usually brings to most parents a sense of bewilderment as to what they should know regarding an infant's needs, care and general growth and development." If that is so they deserve no sympathy. The baby needs it all. How dare anyone bring a child into the world without knowing how to look after it ! Such knowldge should be given to all potential parents on a national scale.

The first thing to teach is that, with few exceptions, all babies are born healthy. If we could get that into the minds of parents many of their worries would disappear.

Next they should be taught that practically all babies are born in good working order. This parents have the greatest difficulty in believing. How few believe that the bowel has been put into a baby for a particular purpose ! They think that without the use of aperients the baby will be constipated and the physical and psychological harm done to the infant is great. It parents were instructed before they had their babies such harm would be prevented.

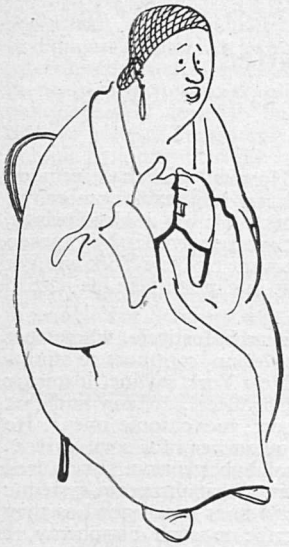
Another point concerns infant-feeding. We know very well that natural nursing is the best way of bringing up infants, yet the medical and nursing professions do so much to prevent it. Wherever the mother looks she sees something that makes it seem better not to breast-feed her baby. She cannot go to any tube station without seeing posters, or open any book on child welfare and baby care, without being reminded of various bottle foods. There is a very good little book called " Preparation for Motherhood," but even there the frontispiece shows a baby sitting in a nurse's lap, being fed on cow's milk.

There is much work being done now among girls in schools in mothercraft. One of the things they do is to make loose-leaf note books which they illustrate with pictures. Much care is expended on these and they are often very beautiful but in each will be found information on artificial feeding. This suggests to the young girls that physiological imperfection may be regarded as normal. Why give such young people the impression that they may not be able to feed their babies ?

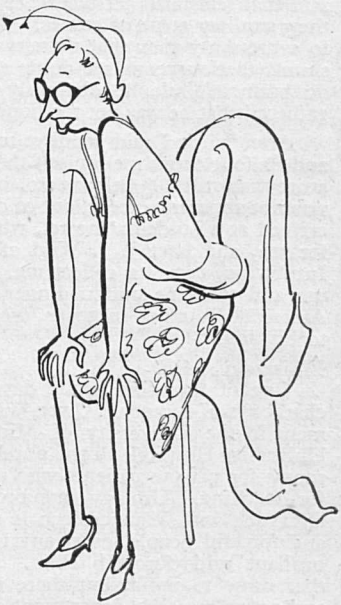
I believe the right thing is always to expect the best to happen. In a London evening paper recently there was an article by a " child psychologist " on how to prevent the first child from being jealous of the second. The reader was told what to say to the first child when the second came along. A few days later in the same paper there appeared a letter from two parents stating that years ago they had followed exactly that course, but something had gone wrong. By extra kindness and attention they had prevented the first child from being jealous of the second but had not been able to prevent the second child growing up jealous of the first. It is certain that if parents look for jealousy—or bad habits, or behaviour difficulties or inhibitions—they will find them. Those who bring up their children with an expectation of general family happiness will experience that too. Some faith is needed.

Please think about some of the things I have put to you so inadequately in this short lecture. It is difficult to say in detail all that one would like to say, but I hope I have given you some ideas. I do not see how we are going to improve the condition of our children unless such improvement is undertaken by the parents and the parents must be instructed. I am sometimes asked by students after a course of parentcraft, " Why were we not told these things before our children were born ? Then we should not have made all these mistakes."

Parentcraft teaching is preventive work and you are the people who can spread the gospel. I hope you will do so.



"I CAN'T DESCRIBE IT DOCTOR — BUT IT STARTS 'ERE TEARS ME IN 'ALF AND GIVES ME A TERRIBLE THIRST"



"YOU CAN'T IMAGINE WHAT I SUFFER DOCTOR —"

"CERTAINLY NOT!"

SUGY/50.

America Re-visited

By Sir HENEAGE OGILVIE, K.B.E., M.D., M.Ch., F.R.C.S.

(*concluded*)

Tuesday, 13*th*.

I started watching Gray again at St. Mary's Hospital, and then went on to Chuck Mayo, who unfortunately had struck an inoperable cancer. I say unfortunately because I have never seen him work. He was at Hot Springs, and left for Rochester the same time as I did ; but whereas I went by Chicago and got down in the beginning of a snowstorm, he went by New York and got grounded half way for three days. He arrived just in time to take his part in the " Folly."

At 11 a.m. Balfour came to take me to the research Institute, where that magnificent trainer of generations of Fellows, F. C. Mann, continues to stimulate research. The talk of such men is like the New York skyline, inspiring but well above one's head. We talked of course, of ulcers. Mann said that calves get ulcers quite often, acute perforating ones and chronic ones. He said that seals also get ulcers, especially in the winter when, for some reason, they swallow a lot of stones. We talked of portal hypertension. I ventured to express my view that there was very little evidence that the porto-systemic shunts that surgeons are doing all over the country do as much good as they do harm. While he obviously could not subscribe to such blasphemy, I gathered that he was not too hopeful about the future of this type of surgery.

After lunch I said goodbye to the charming Gray family and to Rochester, and Balfour drove me himself the seventy miles to Minneapolis. The temperature was still 10° below zero, but the air was so still and dry that the cold was not apparent except, out of doors, on the tips of one's nose and ears. We arrived at a students' hostel, where Wangensteen had kindly booked a room for me, and later J. J. Wild of University College, now doing research on Intubation, came to collect me. He brought a pair of fur ear-muffs for my use and took me out to dinner with Varco, one of the most stimulating of America's younger surgeons, who has a lot of research work on peptic ulcer to his credit.

Wednesday, 14*th*.

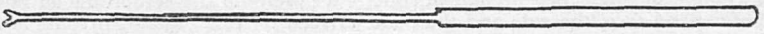
One of the most hectic days of my life with one of the most dynamic characters of surgery. Owen Wangensteen is the head of the Surgical Department in the University of Minnesota. His unit consists of 75 beds in the University Hospital, all the purely surgical beds in that hospital, and includes rooms for private patients who are treated equally with the others as material for teaching. Urology, gynæcology and orthopædics have separate units. Everyone with Wangensteen is whole time and they all seem to be brilliant and forceful people, or at any rate to have caught these qualities from their brilliant and forceful chief. Varco, Lillehei and Wild are the three that come to mind, but there are others. Within the unit is a very large and active research department and a cancer investigation clinic for the overhaul of apparently normal people over 40. A fair number of cancers (I believe 7%) are found this way.

We started with a " seminar " on the Physiology of the Adrenal Cortex and its surgical applications. As I know nothing about the adrenals, except where they are, I missed much. The adrenal cortex is essential to life. It controls the balance of salt, water, sugar and proteins in the body. Adrenalectomised animals are very sensitive to trauma of all kinds and their wounds will not heal. The tolerance of normal animals to shock and burns can be raised to some extent by giving adrenal corticoids. Much of the discussion centred on eosinophilia as an index of adrenal function and then wandered on to stress diseases and the part of the adrenal cortex in their ætiology.

Wangensteen's first operation was an oblique inguinal hernia. He exposed the neck widely, well above the internal ring, resected the neck and surrounding peritoneum and closed the hole with interrupted silk sutures. Then he dislocated Poupart's ligament so that he could get his finger under it. Next he split the cord into two portions, the pampiniform veins laterally, the cord

and a few vessels medially, and sutured the conjoined tendon and cremaster to Poupart's ligament lateral, between, and medial to these two portions by interrupted mattresses of silk passed from outside through Poupart's and back (hence the previous dislocation). He then split the lower leaf of the external oblique nearly down to Poupart's ligament in two places corresponding to the two parts of the emerging cord and sewed the flaps back onto the internal oblique by interrupted silk sutures. Lastly he sewed the upper leaf of external oblique back to the lower. The final result was that the cord came out directly through an overlapped abdominal wall in two places and thereafter lay subcutaneous.

He then did a gastrectomy using a Petz sewing machine for the duodenal stump, but doing the anastomosis (a posterior valvular Billroth I, but with a pretty short proximal jejunal loop) by his aseptic method, which is similar to Pringle's or Schoemaker's anastomosis in the colon. He uses a long instrument with a tiny forked end as an inverter and to tie knots at the bottom of a hole.



I notice the Americans generally seem to believe that the nearer an anastomosis is made to the duodenum, the less likely is it to undergo post-operative ulceration; whereas we make our proximal jejunal loops on the long side, to get an even curve and no tension, they make them as short as they can.

We went to the wards to see a woman of 63 admitted for repeated hæmatemesis without a demonstrable lesion. He had done a total gastrectomy on the conviction that the bleeding was œsophageal, though there was no evidence of portal hypertension. The patient was doing well. He believes that total gastrectomy is the right treatment for bleeding from œsophageal varices on the view that there are two factors, the varices and peptic ulceration, that makes them bleed.

We returned to the theatre and he did a similar gastrectomy for cancer. He uses a high bilateral transverse incision, or inverted U.

He then explored a patient with a largish duodenal ulcer on the anterior-superior wall about half an inch beyond the pylorus, but causing no stenosis. He left the ulcer alone and did a Ramstedt submucous resection of the pyloric sphincter. Then he divided the stomach about two inches proximal to the pylorus and closed half the lumen on the greater curvature side. Then he worked up the greater curvature of the body, well beyond the spleen, ligating the vessels nearly to the œsophagus. He divided the stomach very high and closed half the lumen on the lesser curvature side. Lastly he joined the cardiac pouch to the pyloric pouch by "aseptic" anastomosis. His idea, I believe, is that after such a radical resection of the acid bearing area of the stomach, the pyloric antrum, which secretes alkali and is only dangerous because of its hormone, can be left and the duodenal ulcer will heal.

For achalasia he mobilises the cardia and brings the lower œsophagus down into the abdomen. He removes its lower end and the fundus and body of the stomach and joins the remaining œsophagus to the pyloric antrum. This sounds a much better and more rational job than Heller's operation or œsophago-gastrostomy, both of which always seem to go wrong.

He is a great believer in the most radical operations for advanced cancer, if there is any chance that all malignant tissue can be removed, even if it involves two or three operations. After operations for cancer of the stomach or colon he likes to open the abdomen again after four months. He may do three or four consecutive operations on such patients, including partial hepatectomies and even multiple partial hepatectomies for metastases. There is a lot of oozing and subphrenic abscesses are likely. He puts in a Penrose drain at the time to prevent accumulation of fluid. Later if he suspects a subphrenic abscess he advocates making a small incision under local anæsthesia just below the costal margin and passing a curved sucker along the diaphragm in various directions till it finds the collection.

In the evening I gave my lecture on acid and ulcers and later we had a most delightful dinner, to which, in the miraculous way that happens in

America, all the big shots had been invited at a few hours notice and to which they all turned up. I stayed the night with Wild and his young American wife. Wild has now a complete workshop for the study of every variety of intubation technique and the manufacture of apparatus. He can handle any metal or plastic, make his own moulds and produce rubber balloons of any shape that will behave in any desired way. The most ingenious is his "creeper" tube, for completely paralysed gut. A long intestinal tube passes at its business end through an apparatus like a big four-legged beetle. At each stroke of a pump the four legs give a convulsive kick backwards carrying the intestinal wall with them and pushing the head and suction nozzle a couple of inches onwards. He is at present trying to use suprasonic waves emitted from a gastric tube to detect cancer in the pre-clinical stage.

Thursday, 15*th*.

One of those irritating days inseparable from air travel. Air travel is grand when you do travel and while you are in the air, but till that point the arrangements would shame any train, bus or shipping company, and at the slightest hitch they become chaotic. We were on the aerodrome an hour beforehand as is the rule and the plane arrived on time, but with some fault in the heating apparatus. This had happened on the previous leg, so that there was plenty of time for a relay plane, of which there were many, to be ready to take over without delay. If delay was decided upon, there was plenty of time to tell the passengers. As it was they were marshalled at the end of a passage leading on to the runway at 9.30 for a 9.45 start. They watched their luggage being put on the plane. They watched it come off again. They watched various experts at work till their eyes got sore with watching and their legs with standing. Finally at 12 they were told they would not go off till 1.30 and that they might have some lunch.

Arrived at Winnipeg, I was met by Mr. and Mrs. Maclean and later by Sheppard. There are customs and immigration officials at the aerodrome, but their scrutiny is rapid and friendly. Sheppard took me along to his house and that evening had a cocktail party to which all the surgeons and their wives, as well as many other prominent citizens of Winnipeg had been invited. I had met Sheppard in Madras in 1946, but now met his wife and four children for the first time. Sheppard has already established a reputation as a fine surgeon, and his children have fallen naturally into their new nationality.

Winnipeg is Middle West, in a huge flat plain, where it gets about as cold as it can be in winter. The temperature was as in Rochester and Minneapolis, about 10° below zero, but there had been much more snow. The streets and pavements had been cleared by snowploughs and heaped snow lay about three foot high on the sides. Each day there is a little more snow, so that it always looks clean. The air again was dry and there was no wind, so that one did not feel cold, but a clue to the severity of the winter is that every car has an electric heater in the water system which can be plugged into terminals at all parking places outside shops and hospitals. The snow won't bind into snowballs ; it just falls as powder.

The friendliness of my reception in Winnipeg was overwhelming. Perhaps they feel more isolated on their prairie several hundred miles from any other Medical University centre, than do the communities on the Eastern Seaboard, but whatever the cause they give a Britisher a wonderful welcome. I visited several of the hospitals and at the "Misery" (Misericordia) I was asked to do a silk repair of a hernia by Farr who was one of my surgeons in the East Africa Force in 1942. I lectured on acid and ulcers to the Medical Society and I had a chance to meet all the surgeons and talk shop continually for two days. They are a grand lot of men, and they are doing fine work. The Winnipeg Clinic, of which Thorlaksen is the head, and at which Sheppard, Farr and Maclean work, is a private clinic on Mayo Clinic lines, admirably designed for efficient working. Dr. Maclean was in England during the war with the Canadian Forces and many Guy's men will remember his wife, now the mother of four beautiful children, as "Blondie," the Irish nurse with the beautiful voice at Joyce Green.

I flew from Winnipeg to Chicago on Sunday the 18th, and was met by Warren Cole, who had invited me to stay with him. Professor and Mrs.

Warren Cole made friends throughout Britian when, two years ago, he was attached to the American Embassy as an observer of British Surgical Practice. They live in a beautiful apartment (Anglice flat, but we don't have flats as good as this) overlooking Lake Michigan. Within an hour of my arrival we were on to a cocktail party, at which before the end more than two hundred people turned up. There were any number of old friends, not merely surgeons from the hospitals, but Paul Hawley who was in charge of the American Medical Services in Europe during the war and Diggs who commanded a surgical division in a hospital near Cambridge.

Two days in Chicago, my last two whole days in America, can only be summarised. I had to buy all my Christmas presents, a task that would have been heavy had not Mrs. Cole told me what to buy and where to buy it. I went round the University Hospital with Warren Cole. Christmas had put a stop to all but urgent operations, but we had a ward round with some very interesting clinical material and in the research department the electron microscope was demonstrated to me. I went round the Presbyterian Hospital with Diggs. I spent a couple of hours at the American College of Surgeons with Dr. MacEachern who, though he got back as I arrived from an all night journey, gave up his time to showing me round and discussing college affairs. The amount the American College has done in co-ordinating surgical education, inspecting hospitals, and raising standards throughout the country in the ten years since I was last at their headquarters in unbelievable. Chicago was all lit up for Christmas. In the main thoroughfare full size snow-white reindeer leaped across each lamp standard. The displays in the shops were wonders of design and execution. The University Club where Warren Cole took me to lunch is magnificent even among American men's clubs, which make ours look like cheap bar-parlours. These clubs provide everything a man can want, a dining room, a library, a squash court, swimming bath, a valet service, hairdressing, post office, theatre, railway, and book-stalls, a shop for last minute Christmas presents. They have suites of rooms, each with its bath, not alone for members, but at which members can put up guests visiting their city. They have a full range of services for lady guests and dining rooms for ladies alone or for mixed guests. In this Chicago club about eight stories up there is a massive "underground" cellar, with huge stone pillars supporting a vaulted stone roof. Here one drinks. Several floors higher is the dining room, taking up perhaps half a dozen floors in height, a reproduction of some chapel in England in the perpendicular style, with long slender pillars, fan tracery in the roof and long stained glass windows, in fact everything except the altar.

The journey from Chicago to New York on the 21st. was upset by the rigours of winter. Snow was in the air, cloud was low and visibility less than quarter of a mile. The plane coming from Los Angeles could not land. We were put in another plane to Indianapolis, and there found the New York plane had again been unable to land and had gone to Cincinnati, so on we went. At Cincinnati the plane we wanted had either gone on or never come, so after a further wait we got fresh tickets and a different plane to New York via Washington. We got into New York at 6 p.m. instead of mid-day. I had dinner with Henry Cave, stayed at the University Club and next morning did some last minute shopping with Lewisohn.

Fog again baulked us. The strato-cruiser, which weighs 70 tons, can only use Idlewide, which was not clear enough and is too heavy for La Guardia, which is built on a swamp, yet was clear. We arrived at Idlewide at 2 p.m. We had to go from Idlewide to La Guardia by bus and there we were issued with new tickets, a very lengthy job as each ticket is written out in longhand and seems to need consultation between two or three officials, none of whom is very clear as to what he is supposed to be doing, and each of whom dashes off at intervals for a long telephone call. This ticket affair took an hour, finding our luggage another two and about 6 p.m. we set off in another plane for Boston. There was our strato-cruiser, but still being groomed. There our newly issued tickets had to be checked over again, a matter of 45 minutes. At 10 p.m. the tankers came along to put petrol into the plane. At 11 p.m. we were off, but by now the fog had settled on Gander airfield and we had to come down in Canada. By next afternoon as we neared England

Heathrow, which had been clear all day, began to get foggy and we had to come down at Shannon and spent the night there. Finally we arrived at Heathrow at 11 a.m. on Christmas Eve, three hours less than four weks after I had left it.

Newly returned from this wonderful trip, I should like to set down some general impressions before the memory fades. In this great country where everything is done so magnificently there are one or two surprising hiatuses. The Americans cannot make toilet paper and they cannot run trains. The railway stations are wonderful travellers' towns where every necessity and luxury is obtainable, everything in fact except a railway ticket. The issuing and purchasing of the collection of complicated handwritten strips of paper that allows one to travel is inefficient, irritating and time consuming in the extreme, and the companies would be well advised to send their officials in turn to Paddington or Euston for a bit of post-graduate study; the time, and eventually the money they would save, would be well worth while. The special diesel-driven luxury express trains are miracles of comfort, but nowhere except in New York is there a platform. Old ladies have to climb up five feet of steep steps to reach their seats and the same to get down. The diesel trains stop and start smoothly, the ordinary trains do so with a fierce jolt that shakes everything from the rack, and makes a night journey in a sleeper a series of dozes between bumps. This jolting is not an occasional slip-up, but an unavoidable and constantly recurring nuisance on every journey. Their men's clubs on the other hand are so much better than the best ones in this country, that comparison does not make any more sense than comparing a Rolls Royce with an ox-cart.

Three things about the American surgeon that never fail to astonish the visitor are his capacity for hard work, his unfailing and unrestrained enthusiasm and his overwhelming generosity. He starts work at least an hour before we do. He rises at 6 or 6.30 and operates from 7.30 or 8 onwards, sometimes for an eight hour stretch with a short break for a snack lunch sent up from the cafeteria and eaten in the changing room. He does ward rounds with great thoroughness and sees every patient almost daily. He attends staff conferences and seminars. He reads everything. He writes papers and gives lectures. He attends meetings in all parts of the country. And with it all he keeps young, cheerful and fit, and goes on working to an age when most British surgeons have had their coronary infarcts and retired to the country or the cemetery. With all this work he greets every stranger with uncritical generosity and unstinted hospitality.

The stranger arriving for the first time in an American surgical centre is apt to be overwhelmed by his welcome. The famous man he has travelled three thousand miles to see will invite a hundred people to meet him at cocktails that evening, and another twenty to dine with him. The next day he has probably fixed a lunch and another dinner party and has arranged for him to give a lecture. He provides a car to take him round and details one of his assistants to show him the research departments. The visitor learns however that this welcome is no more than an expression of his host's genuine kindness. No greater welcome is or could be accorded to the University Professor or the President of the College : no lesser welcome awaits the West End dichotomist and the Harley Street Spiv.

Enthusiasm is the telegraphic address, the theme song of the American surgeon. It is apt to be directed especially towards the new and bizarre, it is not often highly critical, but it is always two hundred per cent. One result of this terrific urge for information and advance is a passion for novelty for its own sake, a willingness to abandon yesterday's advance before it has been tried, for today's advance with the printer's ink still wet on the paper, a fear of being thought an enemy of progress if he supports the accepted or criticizes the new. Thus on a tour of surgical centres, the discussions seem to concern themselves with a series of papers, all laudatory of some new method, the only dissentient voice in the chorus being the man who jumps up to announce one newer still that has not yet reached the stage of publication. It is difficult on any subject to find a settled body of opinion, an outlook that has been well chewed over in debate and well tried on patients. On such a common and well discussed subject as the surgical treatment of peptic ulceration there seems to

be no clear line of progress, but a frenzied collection of surgeons and research workers running round in circles, many of them back where they came in, at gastro-jejunostomy, pyloroplasty, pylorectomy, fundicectomy and local operations of every kind.

Another surprising discovery to the visitor is the extent to which American surgery and American hospitals depend on private practice. The spirit of America is one of fierce independence and a determination to make good. The ordinary citizen is proud and self-reliant. He has made or is making his own way in the world and is proud of his achievements. When he has set his mind to reach some goal, or to secure some possession, he works like a galley slave till he has got where or what he wants. When he is sick or needs an operation, he is determined to pay his way and to choose the physician who will advise him and the surgeon who will operate; very often he wants to choose the operation he will have. Well over half of the citizens of the country are insured against sickness.

The effect of this attitude on American surgery is a little hard to assess. Many hospitals, among them some of the best known, are for private patients only. Among the others the majority have as many private as public beds, if not more, and depend on the income from the private blocks to defray or at any rate reduce the cost of running the rest of the hospital. The patient who is paying his way is naturally free to choose his attendant, and, since there there are no higher degrees or diplomas recognized and registered as such by the State or Federal authorities, almost all doctors, and there are some whose training, experience and skill leave a lot to be desired, have operating rights at some of the best hospitals. The results are to be seen in the large number of operations for repair of injuries to the common bile duct that are reported yearly in the United States, and in the insistence by the American College that in hospitals accepted as suitable for training, all tissues removed at operation shall be reported on by the pathologist.

The fact that the majority of patients pay for their treatment has other repercussions. Donors are paid for their blood, and the amount required for a serious operation may easily cost the patient twenty or thirty pounds. For this reason one sees blood substitutes and particularly Dextran used, not because they are better than blood or even as good, but because they are cheaper. Insurance allows the American to hire the man of his choice when he is sick, to pay his way and to keep his self respect, but insurance is a business deal, and the really sick man is not a business proposition. After an illness or an operation, either the premium is increased for future cover or, more usually, certain risks are excluded.

Other differences between the hospitals of America and Britain are apparent, mostly to the advantage of the former. The equipment for deep therapy is surprisingly meagre. In one hospital of 300 beds, a single apparatus of 200 K.V. seemed to comprise the outfit. On the other hand the immediate post-operative care of surgical patients is admirably organised. In sequence with each group of theatres there is a small recovery ward of about ten beds, equipped with apparatus for resuscitation administration of oxygen, bronchial aspiration, and with a complete stock of the drugs and supplies that may be needed, and here the patients remain under the care of a doctor and a pair of nurses, within a few yards of the surgeon who did the operation, till they are nearly round and in a state of respiratory and circulatory equilibrium.

The Research Department is a remarkable feature of the American Surgical Unit, not merely for the large amount of work that is being done, but for the close liaison that exists between research workers and clinicians. Most of the young men holding Resident posts in the wards are engaged on some problem in their spare time and anyone who intends to be a surgeon learns in this way the exacting technique of suture and anastomosis at an early stage. Two problems seem to be engaging research workers at several places at the present time—the excision and suture or replacement of sections of the trachea and main bronchii, and bypassing the heart by the provision of a temporary extra-cardiac circulation.

I have referred to the courage, enterprise, dignity and self reliance of Americans in whatever walk of life. They call no man their master and expect

no man to be their servant. It is remarkable however to realise that these qualities are part of the early training of every American child. During my first week I was staying with a successful physician. His daughter, a lovely high school girl of about sixteen worked in the office of a shop during vacations to earn her pocket money. Dining with us was a Professor of Surgery famous throughout the world for his research work on the surgery of the heart and blood vessels. His son, at day school, had a paper round that earned him a dollar a day; he set the alarm at 4 a.m., rode to the newspaper office on his bicycle, delivered papers till 5 a.m. and came back for two hours more sleep. Later on in my visit, a surgeon took me in to see his boy's motor car, a historic Dodge in beautiful condition. This lad worked during vacations as a lift man in the hospital where his father worked as a surgeon. When he had enough money to buy his car, he suddenly decided to spend it on a television set for his parents. Next vacation he looked round and found he could earn more as a greaser at a Service station than as a lift man, so he took on this job and soon had enough for the car. Everywhere one found this refreshing relationship between children who were proud to think that they could already make a place for themselves and buy their own luxuries, and parents who were proud that they should want to do so. It is perhaps significant that the American father does not speak of "my son" as of a dependent, but of "junior," as a much loved but individual and self-sufficient offspring.

Reviews

Child Health in Warm Climates. By W. K. BLACKIE. Longman's. *Price* 7*s.* 6*d.*

Written by a doctor living in S. Rhodesia, this book is full of good sense well expressed, though the section on artificial feeding of infants deserves revision to bring it up to the standard of the remainder. Our eyebrow's almost reached our receding hairline on reading that where mother's milk is not available "the child should always be given fresh cow's milk, for the virtues inherent in fresh milk will always outweigh any apparent advantages claimed for the dried or humanised forms," but they crept down again on finding that the author does recommend that cow's milk should always be boiled and that it should be modified to make it closer in composition to human milk. Halfcream powder milk is pre-eminently suitable for babies in hot climates, and it would be helpful to mothers and others to say so. It would be well to simplify the terminology and shorten the more lurid descriptions of diseases in a book designed for parents and teachers as well as doctors and nurses, and it is a gross lapse in addressing a lay audience to dismiss Kwashiorkor, after reference to the severe symptoms and high mortality, as "an *interesting* disorder of childhood amongst Africans." Nevertheless the book is certainly recommended for parents and child welfare workers in warm climates, and most doctors would profit from reading it.

Handbook of Psychology for Nurses. By J. H. EWEN. Sylviro. *Price* 25*s.*

In the preface to his book, Dr. Ewen says that it was written primarily for the student who is preparing for the Diploma in Psychological Medicine. It is an attempt to give an outline of the scope and contents of psychology in simple terms. Though in so small a compass some of the subjects must of necessity be treated briefly, the author has in the main succeeded in his aim. There are sections on the psycho-analytic doctrine of the unconscious and the mechanisms of defence, and on the relation of psychology to mental disorder. For a small book, the price (twenty-five shillings) is rather high.

D.O'N.

German-English Medical Dictionary. By JOSEPH R. WALLER and M. KAATZ. George Allen and Unwin. *Price* 10*s*

A useful dictionary in compact and convenient form at a reasonable price.

Correspondence

Mr. Gerald D. Channell.

SIR,—The recent tragic death of Mr. Gerald D. Channell occurred at a time when he was in the middle of a period of training for a speciality. This further period of training has meant that he had no time to readjust his financial circumstances following an absence of nearly six years on war service.

We feel, therefore that many of his friends, colleagues and students would welcome the opportunity of subscribing to a fund which would enable his family to tide over the difficult circumstances caused by his sudden death.

Subscriptions should be sent to any of the undersigned or alternatively direct to Barclays Bank Limited, 43, Borough High Street, London, S.E.1., and cheques should be made payable to G. D. Channell Trust Fund.

Yours, etc.,

R. C. BROCK
N. L. ECKHOFF
S. H. WASS
J. WHILLIS

Guy's Hospital, S.E.1.

"Among the Doctors."

SIR,—I have not read Dr. Cox's book, but I have a lively recollection of his brilliant record of achievement during the many years he was Secretary of the B.M.A.

I heartily agree with your reviewer that these years of distinguished service do give rise to a solemn thought—but scarcely in the way he intends.

He casts doubt upon the unbiassed nature of his criticism in the minds of all who know Alfred Cox and does not add to his own reputation.

Cox's long and honourable association with the profession make it reasonably certain that his opinion can scarcely be quite as devoid of interest as your reviewer would have us believe.

Yours, etc.,

H. M. STANLEY TURNER.
Wing-Commander R.A.F. (Retrd.)

Soil Fertility and the Health of the People.

SIR,—"To keep an open mind and remain students always" was sound advice received by many Guy's students in the past. There are therefore lifelong extra-mural Guy's students all over the world, who might be interested in nutrition and health.

The few published works on this subject, to which the final paragraph of my letter in your issue of 3rd June directed their attention, contain ample proofs of my contentions. I thank you for including this letter and so furthering the function of Guy's Medical School; i.e., to provide every facility to acquire knowledge by those who seek it. The value of tutors and lecturers was proportioned to their ability to inspire pupils with a desire for knowledge, and often inversely proportional to their academic qualifications. Thus mindful of the daily consumption of 30 acres of timber by Fleet Street, I refrained from including all the published work in support of my contentions.

If realisation of ignorance is the first step to knowledge, then as regards ecological balance, my second step was to join the Soil Association, and study a small section of the published works suggested by that organisation.

Three medical practitioners have recently admitted their ignorance of the work of McCarrison. I cannot remember any lectures at Guy's nor any published clinical lectures in the *Gazette* bearing on subjects involved in ecological balance. Should this be a deficiency in the educational facilities at present provided by Guy's, and not merely a defect in my memory, I respectfully suggest that nothing but advantage could result from the inclusion of occasional lectures on these subjects, and perhaps the possession and use of a copy of the film recently produced by the Soil Association. No doubt their education committee or other organisation could suggest suitable lecturers. Thus could medical education abandon its present isolationism and better serve the peoples of the world.

You seek a conclusive argument as to the manner in which the health of plants, animals and human beings can be linked together. This can only be done by including the soil to complete the cycle of life.

Strong supporting evidence is contained in the report of feeding experiments on cats extending over 10 years and involving 900 animals. *Vide*, American Journal of Orthodontics and Oral Surgery, Volume 32, No. 8, August 1946.

A telegraphic summary ; raw diets, healthy cats, luxuriant weed and bean crops on the vacated pen sites after the conclusion of the feeding experiments, with varying crop growths to practically no growth on the sweetened condensed milk pen site, the crops flourished or not to the same extent as the cats that occupied the pens on the respective sites ; indicates the scope of the experiment.

My conclusion from this is that diets capable of sustaining full health and reproductive capacity were converted by animals into waste products capable of influencing the living elements of the soil in such a manner that the soil was able to grow the luxuriant crops and so complete a healthy cycle of life.

The report ends with this extremely significant statement, " The principles of growth and development are easily altered by heat and oxidation which kill living cells at every stage of the life process from the soil, through the plant and through the animal. Change is not only shown in the immediate generation but as a germ plasm injury which manifests itself in subsequent generations of plants and animals."

The important work completed in India by Sir R. McCarrison included rat feeding experiments extending from birth to two years = 50 years of human life. Groups of rats were fed on diets similar to those of the outstandingly fit and virile races of Hunza, Sikh and Pathan. The ingredients were obtained by organic husbandry as is practised by these peoples. These rats had no illness, no natural deaths, no maternal or infantile mortality. If milk was reduced, or cut *in toto* or the consumption of green vegetables was reduced, lung, stomach, bowel, kidney and bladder diseases occurred. Rats fed on white bread and margarine, tinned meat, vegetables boiled with soda, cheap jam, tea, sugar and a little milk, did not grow well, many became ill, they were unhappy together, on sixtieth day the stronger ones killed and ate the weaker, and separation was necessary. Diseases were of lung, stomach, intestines and nerves. i.e., those of which one in every three sick persons suffers in the insured classes of England and Wales.

Another experiment demonstrated the long term effect of chemical fertilization and F.Y.M. on the quantity of crops produced. In 1922, chemical crop twice millet crop on F.Y.M. but 1925, chemical wheat 760 lbs. per acre, on F.Y.M. 1140 lbs per acre. Millet seeds from F.Y.M. land cured pigeons with beri-beri, and not so those grown on chemical fertilised field.

Mr. Rowlands and Miss Barbara Wilkinson, Biochemical Journal, Vol. XXIV, No. 1, 1930.

In this experiment, rye grass and clover seed added to the Drummond Vitamin B free diet on the 19th day of rat feeding experiment brought about

a complete recovery of the animals. A similar quantity of seed taken from the chemically fertilised half of the same field failed to check the decline in health of the other group of rats. On the 22nd day Sir J. Drummond advised stopping the chemically grown seed, and substituting those grown on the pig manure half of the field, which had so improved the health of the first group. This caused a return to health of the remaining rats, some having been killed and eaten and others, I think had died.

The late Sir Albert Howard and others of like mind condemned the use of agene in the processing of flour and credit is due to them for educating the public opinion sufficiently to cause one example of scientific folly to be stopped by Parliament. They also condemn fractionalization of foods. The whole wheat berry from which our daily bread should be made is robbed of many health promoting factors. Of the minerals removed, calcium, phosphorus iron, fluorine, manganese and magnesium are familiar therapeutic agents. The dental profession experiments with applications of fluorine to children's teeth, hoping to delay the onset of caries. The wheat germ with its Vitamins B and E is taken, and is not an extensive investigation being made to find a cause or causes for the lowered birth rate? Bran is removed. The cost in cash to the nation for therapeutic measures to combat constipation might be worked out, but the total cost in medical and surgical ills, secondary to this complaint, can only be imagined. Is it not reasonable to ask if these are examples of action in defiance of knowledge or just ignorance begetting nonsense?

Does the Ministry of Agriculture advocate and advise how to make a high chlorophyll content hay upon which cows depend to produce vitamin in winter milk? Does the Ministry of Health conduct biological tests to prove the presence or quantity of vitamins in the butter sold by the Ministry of Food, and withdraw it from sale if below standard? Does the Ministry of Food publish the vitamin content of butter and other foods it supplies to the retail shops? If they do not then the horse still lies almost moribund in their hands.

Acknowledging free use of information from the literature recommended in my letter, and a leaflet " Soil and Seed " by Lady Eve Balfour.

Yours, etc.,

STANLEY P. MEACOCK.

6 Eaton Road,
Coventry.

SIR,—I cannot let your remarks on soil fertility, which appeared in *Passim* on 3rd June, pass without some comment. Mr. Stanley Meacock may have been somewhat radical in his letter; but, as a Dental Surgeon, I am compelled to give him my full support.

Why is it, that after half a century of active research, ninty-nine per cent or so of this Island's teeth decay steadily and relentlessly. Every scientific theory up to now has been completely exploded. Only two experiments have ever really raised our hopes. The first was by feeding children on raw milk and the second, by feeding children with food grown from compost treated soil. Both these experiments have had startling results.

It is unfortunate that India and China should have been mentioned as an aid to dispel the Soil Fertility theory. Surely, the rampant disease and emaciation of these peoples is almost entirely due to sheer lack of food. I examined hundreds of Asiatic mouths during the war years and can assure you that dental decay is negligible compared with this country.

The ever increasing decay of this Nation's teeth has run concurrently with the increasing use of chemical fertilisers during the last century. My own family will be fed as far as possible on food grown the compost treated way, until the scientists can offer not only a better explanation, but a positive answer to this stupendous problem of dental caries.

Yours, etc.,

N. F. CLARKE.

140 Harley Street, W.1.

Sport

CRICKET

INTER-HOSPITALS CUP—2nd ROUND

Guy's *v.* Charing Cross Hospital

At Grove Park.
6th June, 1950

Result : Won—by 88 runs.

Guy's

D. E. Blake, c. Johnston b. Marston	72
D. M. E. Allan, l.b.w. b. Hill	0
P. L. Pickett, b. Bowers	15
A. F. Jones (Capt), b. Bowers	16
K. W. Gray, b. Marston	0
D. M. Lipington, b. Hill	16
N. R. Cooke, l.b.w. b. Marston	10
H. Bissoon-Dath, b. Marston	2
W. J. Howells, b. Marston	0
T. Smith, b. Bowers	0
W. Tweed, not out	3
Extras	6
Total	140

Bowling : Marston, 15-1-42-5 ; Bowers, 13-3-35-3 ; Hill, 7-3-24-2 ; French, 5-0-33-0.

Charing Cross

C. W. R. Marston, b. Gray	5
M. A. Mathew, c. Smith b. Gray	6
N. P. Peet, b. Gray	0
P. Harris, l.b.w. Gray	22
A. G. Johnston, b. Smith	2
G. G. Hill, st. Blake b. Bissoon-Dath	6
N. Bolighey, b. Gray	1
N. D. Reis, b. Bissoon-Dath	4
A. Brooke, b. Gray	0
D. French, c. Howells b. Bissoon-Dath	4
K. L. Bowers, not out	0
Extras	2
Total	52

Bowling : Gray, 12-5-17-6 ; Bissoon-Dath, 4-1-7-3 ; Smith, 10-2-18-1 ; Allan, 2-0-4-0 ; Tweed, 1-0-4-0.

Guy's *v.* Lensbury C.C.

At H.O.P. *Result*—Won.
10th June, 1950.

Guy's Hospital 189-8 declared. Lensbury 135.

Guy's

D. E. Blake, c. Hodgeman b. Whitfield	62
D. M. E. Allan, l.b.w. b. Townrow	3
P. L. Pickett, b. Townrow	8
A. F. Jones, b. Townrow	16
D. M. Lipington, l.b.w. b. Townrow	4
K. W. Gray, b. Whitfield	17
N. R. Cooke, b. Morris	7
H. R. Prentice, c. Abel b. Mullis	31
W. J. Howells, not out	29
H. Bissoon-Dath, did not bat	
T. Smith "	
Extras	12
Total	189

Bowling : Bissoon-Dath, 13-1-63-5 ; Gray, 15-6-35-2 ; Allan, 6-1-13-2 ; Smith, 9-1-23-0.

Guy's 2nd XI *v.* Lensbury

At Lower Sydenham. *Result*—Won.
10th June, 1950.

Guy's 206-5 declared, Lensbury 146.

Bishop, M. 62 not out. Sandfield 50. Meyer, H. 48.

Bowling : Bishop, 15-3-39-7.

Guy's *v.* Finchley C.C.

At Finchley. *Result*—Lost.
11th June, 1950.

Guy's 156. Finchley 157-3.

Guy's

D. E. Blake, c. Walton b. Levy	55
D. M. E. Allan, b. Levy	3
D. M. Lipington, st. Winchester b. Levy	13
A. F. Jones, c. and b. Levy	4
P. S. B. Russell, l.b.w. b. Farrow	1
E. R. Gibbons, b. Farrow	0
H. R. Prentice, c. Walton b. Phillips	16
W. J. Howells, b. Farrow	45
H. C. F. Meyer, b. Phillips	10
A. Whittaker, b. Levy	0
J. Croft, not out	3
Extras	6
Total	156

Bowling : Levy, 19-2-56-5.

Guy's Bowling : Allan 18-1-51-1 ; Russell, 7-0-32-0 ; Croft, 3-0-13-0 ; Gibbons, 3-1-16-0 ; Whittaker, 2-0-11-0.

LAWN TENNIS

HOSPITALS' CUP

In a hard fought match at Honor Oak Park on June 21st, Guy's were just beaten by Westminster Hospital by 8 matches to 7. It was an excellent and hard fought match played under difficult conditions with a high wind and intermittent showers. It was more or less a foregone conclusion that by virtue of their Davis Cup player, Lewis, Westminster would start with the probability of winning 4 matches. However, Guy's took them to the last match. It was played late in the evening. The Singles matches went according to expectation and when 6 matches had been played the score was 3 all. The contest, therefore, turned on the Doubles, and of these Guy's expected to win 4 and hoped to win 5. The key match was clearly when Opie and Duckworth played Wagstaffe (a Cambridge Blue) and Grande. Inspired in the first set, the Guy's players swept their opponents off their feet and took it 6-1. In the second set Guy's faltered badly, failed to recover and eventually lost it 7-9. Inspiration was now gone. The Guy's players tried hard but failed and the last set was lost 4-6. It would be invidious to mention individuals in a match which was truly played as a team. Mention, however, might perhaps be made of Guy's players—numbers five and six, who won more than their share of the victories. It was an excellent contest and Guy's were not disgraced in being beaten by a good team who played hard and gave no quarter.

1st Team Results

May	13	Lloyds Bank	Lost
	17	City of London Police	Lost
	20	Eton College	Won
	24	U.C.H. (Hospital Cup)	Won
June	3	Paddington	Lost
	6	Royal Naval College	Won
	17	London Hospital	Lost

BOXING CLUB

At the Annual General Meeting of the Club held on 13th June, 1950, the following officers were re-elected :

President : Mr. A. J. McNair
Vice-Presidents : Dr. E. R. Boland
Prof. M. A. Rushton
Dr. Keith Simpson
Mr. G. A. R. Winston
Colonel E. Waley

and the following were also elected :

Vice-President : Mr. J. S. Batchelor
Captain : D. M. Lipington
Vice-Captain : R. C. C. Thompson
Secretary : A. H. Atkinson
Committee Members : M. Bishop
W. Watson
T. M. Winstanley

At the Open Boxing Tournament held on 20th February when the Metropolitan Police were the Club's opponents, the sum of £186.11.5 was realised in aid of the Funds of the Pavy Gymnasium. In view of the popularity and success of this event, it was decided to hold an Open Tournament at Seymour Hall next year when the Club will again look forward to the same support given by its members and friends as in the past.

SAILING

The Ogilvie Cup will be competed for at Burnham-on-Crouch, in the United Hospitals 16ft. boats, on Friday July 14th, 1950. Will all those who intend to enter please give their names to the Secretary as soon as possible.

J. W. BRADBEER.

Students' Union Summer Ball

The Students' Union Summer Ball was held at the Victoria Halls, Southampton Row, on Thursday evening, 22nd June.

Music for dancing was played by Doug Wood and his Band, whose style and tempo once again proved very popular. Attendance was good, and it is to be noted that the dearth of young ladies at some of the previous dances did not present itself this time.

Several new and original novelty features were introduced, including " Mr. Paul and Miss Jones," the mystery couple, and much amusement was also caused by the " exhibition spot dancers," who were all suitably rewarded for their impromptu performances.

As usual the bar and buffet offered welcome refreshment for tired dancers, and for those who did not really come to dance at all. Later in the evening, the now popular " Battle of Balloons " gave some of our Rugger enthusiasts an opportunity to demonstrate their tackling abilities, and the Ball ended with the Raffle, from which several fine prizes were won.

The Entertainments Committee wishes to thank the members of the Students' Union Council and others for helping to make the Ball such a grand success. The next dance function, the " Freshers' Ball," will be held in the autumn at St. Pancras' Town Hall, and notices relating to this will appear in the Hospital in due course.

July

ACADEMIC

		Exhibition. Surgical Department. " Rectal Bleeding."
3rd.	1.00.	Mr. Cann. Clinical Lecture.
6th.	1.00.	Mr. Glover. Clinical Lecture. " Swellings in the Scrotum."
	4.30.	X-ray Meeting. Gordon Museum.
8th.	10.00.	Professor Milnes Walker, Bristol Royal Infirmary. Surgical Departmental Round. Clinical Theatre.
10th.		Demonstration. " Dwarfism and Giantism." Gordon Museum.
	1.00.	Dr. Hind. Clinical Lecture. " The Evolution of Anæsthesia."
11th.	1.00.	Dr. Hardwick. Clinical Lecture.
13th.	1.00.	Mr. Eckhoff. Clinical Lecture. " Intestinal Obstruction."
	4.30.	X-ray Meeting. Gordon Museum.
14th.	1.00.	Dr. Mann. Clinical Lecture. " On Treatment of Incurable Disease."
	4.30.	Dr. Bishop. " Dwarfism and Giantism." Gordon Museum.

SPORT

8th.	2.30.	Cricket. 1st XI *v.* Architectural Association. (Away)
	2.30.	Cricket. 2nd XI *v.* Lewisham. (H.O.P.)
9th.	2.30.	Cricket. XI *v.* Streatham. (H.O.P.)
15th.	2.30.	Cricket. 1st XI *v.* Private Banks. (Away)
	2.30.	Cricket. 2nd XI *v.* Private Banks. (H.O.P.)

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the following appointments to the Junior Staff for the session 1950-51, duties to commence on 1st October, 1950 :—

Department of Psychological Medicine—Registrar (5 sessions per week)

Ophthalmological Department—Registrar (2 sessions per week)

Neurological Department — Registrar (wholetime)

The grading of these posts is Registrar, 1st year, and the salary will be proportionate at the rate of £775 per annum. Forms of application which can be obtained from the Medical School, should be lodged with the Dean, Guy's Hospital Medical School, London Bridge, S.E.1. not later than **15th, July, 1950.**

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence on 1st October, 1950 :—

Casualty Department : Two part-time Registrars in the Examination and Casualty Departments, one for attendance on 5 sessions a week and the other for attendance on 6 sessions a week. Salary at the proportionate rate of £775 per annum in the first year.

Dental Department for Children : One Registrar for 6 sessions per week. Salary at the proportionate rate of £775 per annum in the first year.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1.to whom applications should be sent not later than Wednesday, **18th August, 1950.**

Applications are invited for the post of **Dental Officer to the Nursing Staff.** Attendance is required for 6 sessions a week and duties will commence as soon as possible. The salary will approximate to £1,200 per annum and the appointment will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Applications together with copies of testimonials, should be lodged with the Superintendent on or before **August 15th, 1950.**

PAPERS BY GUY'S MEN

Crisp, E. J. General Ultra-Violet Irradiation: Its Present Scope. *Physiotherapy*, 1950, **36,** 45.

Dyce, James M. and Small, Marion E. Dental Photography with a specially designed unit. *Brit. Dent. J.*, 1950, **88,** 317.

Enderby, G. E. H. Controlled Circulation with Hypotensive Drugs and Posture to Reduce Bleeding in Surgery. *Lancet* 1950, i, 1145.

Evans, P. R. and Polani, P. E. The Neurological Sequelæ of Rh Sensitization. *Quart. J. Med.*, 1950, **19,** 129.

Fox, Wallace. Apico-basal Diameters of the Lungs and Mediastinal Shift in Phrenic Nerve Crush and Pneumoperitoneum Therapy: A Study of Eighty Cases. *Thorax*, 1950, **5,** 183.

Fox, Wallace. A Modified Conception of Phrenic Nerve Crush and Pneumoperitoneum Therapy. *Thorax*, 1950, **5,** 194.

APPOINTMENTS

UNIVERSITY OF LONDON.

The Title of Professor of Pharmacology in the University has been conferred on J. M. Robson, D.Sc., M.D., in respect of the post held by him at Guy's Hospital Medical School.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

Council.

Mr. A. D. Marston, and Professor R. V. Bradlaw, C.B.E., have been co-opted to the Council.

Examiners.

Fellowship.

Anatomy, Professor James Whillis.

Applied Physiology and Pathology, Professor W. R. Spurrell.

Diploma in Anæsthetics Part I.
Dr. R. R. Macintosh

Diploma in Physical Medicine Part I.
Dr. E. J. Crisp.

Dental Surgery (Surgical Section)
Mr. N. L. B. V. Eckhoff. Mr. S. H. Wass.

BIRMINGHAM DENTAL STUDENTS SOCIETY.

Mr. S. N. Tinker has been elected President and Mr. R. F. Pursey, President-elect of the Birmingham Dental Students Society.

BOARD OF REGISTRATION OF MEDICAL AUXILIARIES.

Dr. F. D. Howitt has been appointed by the Society of Apothecaries to fill a vacancy on the Board.

CHANGES OF ADDRESS

M. P. Coplans, M.B., B.S., 647 London Rd., Westcliffe-on-Sea, Essex. Tel. Southend-on-Sea 44844.

R. L. Luffingham, M.B., B.S., c/o Furness Withy & Co., Ltd., Furness House, 34 Whitehall St., New York 4, U.S.A.

R. D. Willcock, M.B., B.S., Homeville, New Road, Bignall End, Stoke-on-Trent, Staffs. Tel. Audley 282.

BIRTHS

FABRICIUS.—On June 12th, 1950, at Guy's Hospital, to Norah (née Williams) wife of Dr. John Fabricius, Old Byeways, Woldingham, Surrey—a daughter.

WOLFSON.—On May 26th, 1950, to Nancy (née Eschelbacher), wife of Dr. L. J. Wolfson—a second daughter.

DEATHS

DICKENS.—On June 15th, 1950, Donald T. G. Dickens, L.D.S., R.C.S., of Rotherfield House, Peppard, Nr. Reading, Berks.

LLOYD.—On May 10th, 1950, suddenly, Charles Evan Lloyd, L.D.S., R.C.S., of 24 Broad St., Ludlow.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1617 *15th July, 1950* *Ninepence*

PASSIM

FIFTY years ago money was regarded as a somewhat indecent topic of conversation. Nowadays it is discussed more readily, although there is still some natural reluctance to talk about personal incomes or fortunes. Especially have we noticed this amongst the medical and dental professions. It is, furthermore, our opinion that the attitude of these professions towards money is neither as straightforward as it might be, nor is it all that should be desired. In particular do we disagree with the way in which these professions have handled the question of their own remuneration.

The reward of any person working in any community is only partly to be measured in cash. This financial reward is indeed an important consideration. We have little patience with those who pretend to disregard it. Cash is, however, so obviously only a part reward; the other part is far less tangible. Happiness, interest, contentment, friendship are not factors to be valued in coin. You cannot award a man so much happiness, so much interest, so much contentment or so much friendship, in recognition of his services. All you can do is to thank him and pay him so much money, and this, in fact, is merely a bald assessment of his economic value. Nothing more. It is governed by the same laws of supply and demand that govern other labour economics. That is why skilled dentists earn large salaries and junior probationers small ones. Occasionally these economic laws are modified by man-made decree. When this happens precisely the situation may arise as now exists amongst general practitioners. The general practitioner feels he is underpaid; he feels this especially when compared with others engaged in the National Health Service. He feels he has been unfairly treated, and he is sore about it. The blunt fact is that there is no drastic shortage of general practitioners and it is this fact which lies at the root of the Minister of Health's refusal to alter their remuneration. We strongly support the contention that practitioners should be more amply rewarded. We equally strongly deprecate the arguments, or some of them, which the practitioners have brought forward in support of their case. We will quote an example.

Recently the British Medical Association had a conference on the remuneration for general practitioners. They announced that £1,700 a year (before expenses) was "Not a living wage or one in keeping with the *dignity* (our italics) or responsibility of the profession." Indeed! There are parsons in this country receiving £350 a year. There are craftsmen receiving little more. There are shepherds receiving less. We have not noticed any lack of dignity amongst such people. Indeed, we are inclined to think that their dignity will shortly exceed that of the medical profession, if this profession can only maintain its dignity by virtue of the salary it receives. General practitioners should certainly be amply remunerated, but not because their "dignity" demands it—what pathetic nonsense! They should be properly paid because they are exceedingly valuable members of the community who have to work very hard, and whose economic value is higher than their present annual income.

We number amongst our friends and acquaintances a selection of laymen from several walks of life. Since the Health Service came in we have heard the views of these friends on the subject of doctors and their attitude to money on several occasions. It is our belief that these views are representative of the average lay public. We would summarise them by saying that the public are rapidly beginning to regard a considerable section of the medical profession as a mercenary-minded collection of professionals whose avarice becomes more and more evident. How true this is we do not know. We have an uncomfortable feeling there is no little substance in it. At least our own brief experience of sitting in hospital residents' quarters was reminiscent of those discussions heard in Service Mess's on how the maximum of pay and allowances could be extracted from the Pay Master.

These are hard words. They do not apply to the whole profession. Unfortunately we believe they apply to a good deal more than "a small minority." It would be tragic indeed if the medical profession should lay additional claims upon the Nation's purse for any but the most honest reasons, and amongst these we do not include their dignity.

We will conclude by saying that should the dignity of the medical profession ever, in any part, rest upon money, it will soon enough rest upon nothing at all.

Congratulations, albeit somewhat belated, to Miss Hester Angove, Principal of the Physiotherapy School, National Institute for the Blind upon her award of the O.B.E. in the Birthday Honours. She was in charge of the Massage Department and School at Guy's from 1914 to 1936.

Readers may be interested to know that under revised arrangements visitors may see patients in the wards at prescribed times on each day of the week, a new timetable having come into operation on 10th July.

Guy's Science Club

Sixth Annual Report, 1949-50

The Secretary reports another successful year's activities, in which there has been a gratifying interest in the Club's meetings. Six scientific meetings have been held, at which the following subjects were discussed:

"The Study of the Living Cell," by Dr. A. F. Hughes.

"Cholinesterases of Mammalian Tissue," by Professor R. H. S. Thompson.

"Compensatory Mechanisms to Anoxia," by Dr. H. E. Holling.

"Atomic Burns," by Mr. P. Clarkson.

"The Use of Electrical Strain Gauges in Physiological Research," by Mr. D. J. Anderson.

"Some Investigations into the Abnormal Distribution of Body Hair," by Dr. W. H. H. Merivale.

The average attendance was forty-seven.

The experiment of inviting a speaker from outside the Hospital for the opening meeting of the season proved to be a successful one, and it is suggested that it might be well repeated.

The grateful thanks of the Committee are expressed to all those who have read papers and to their respective chairmen and others who have assisted them, to the Dean for his continued permission to hold meetings in the comfort of the Common Room, to the Common Room Staff for their co-operation and for serving tea, to Professor Spurrell and Mr. Foxon for the loan of the epidiascopes on various occasions, and to Mr. K. Twinn for making technical arrangements as required.

Natural History of Certain Viral Infections of the Liver

By PROFESSOR PERRIN H. LONG, M.D., F.R.C.P.
Professor of Preventive Medicine, Johns Hopkins University

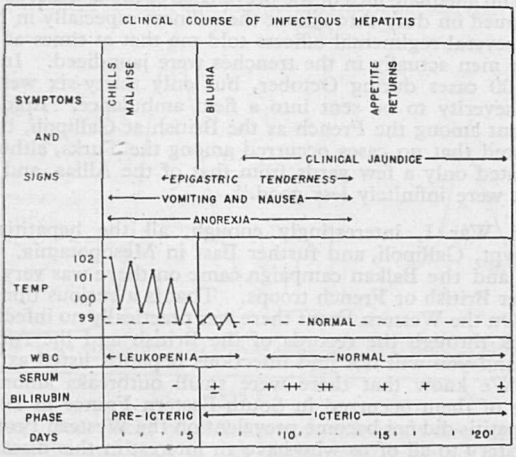
A Clinical Lecture delivered at Guy's Hospital Medical School on 9th May, 1950

LADIES AND GENTLEMEN,—I had a great deal of experience of your doctors during World War II and I consider myself very fortunate in being able to stand among you in Guy's Hospital and Medical School. It is an experience which I believe is unique in post-graduate and undergraduate education in our two countries, because, as far as I know, there is no similar arrangement between any other American and British medical schools.

In my clinical lectures I am going to discuss the natural history of disease. You might ask yourselves what is the natural history of disease. In discussing this subject we need not dwell at length on the pathology, the clinical signs and symptoms, or the therapy of disease—that is not within our province. Instead, we will take up, for example, the history of the disease, the factors concerned with its transmission and dissemination, something about its morbidity and mortality, something about its ætiology and how the disease has affected the population group in which it has spread—in other words, the social and economic factors relative to the disease or arising from it.

To-day I have elected to talk about the natural history of certain viral infections of the liver, and I shall discuss the natural history of infectious hepatitis and what we call, in our country, serum hepatitis.

Infectious hepatitis is a world-wide disease occurring both in endemic and epidemic forms. It is always more common during war. As a matter of fact, I think without any doubt we can say that war in certain areas of the world is always accompanied by hepatitis. If you bring North Americans,



Europeans, New Zealanders, Australians and certain South Africans into such areas you will almost certainly have an outbreak of hepatitis ; on the other hand, if you bring certain other races, such as Indians and our own negro people, then the chances of a severe outbreak of infectious hepatitis will be very slight.

I show you a diagrammatic slide illustrating the common clinical course of the disease ; you will see that it is characterised by a pre-icteric and then an icteric phase. If care is properly taken the patient will recover within 30 to 60 days. As I pointed out, the large epidemics of hepatitis which have occurred during historic times have almost always occurred during war. It is known now that in 1762 when the British fleet and part of the British army were attacking

Minorca, hepatitis broke out among the troops, and the incidence of the disease was so great that they had to withdraw and the attack had to be abandoned We know that when the army of the Nile went to Egypt in 1799, within a few months after arrival, hepatitis made its appearance, and we get a very interesting account of that from the writings of Baron Larrey, who was Napoleon's surgeon. He ascribed the origin of this jaundice to " wine, women and high living." In the Crimean War, jaundice played a most important rôle in producing a high degree of morbidity in British and French troops. As a matter of fact, with the exception of cholera and, possibly, typhus among the French troops, it was one of the most important diseases. In our own Civil War in the States, many thousand cases of jaundice were reported among the Northern troops.

World War I

In World War I jaundice occurred in epidemic form only in troops who were in the Middle East—in Egypt, Mesopotamia, or Palestine—and those of us who were in that war, if we had paid more attention to one of your greatest physicians, the late Sir Arthur Hurst, would have been greatly helped in dealing with it in World War II. In his book, *Medical Diseases of the War*, Sir Arthur Hurst wrote as follows :—

" The first outbreak of epidemic jaundice occurred in July, 1915, among the troops stationed in certain camps in Egypt. There was no jaundice at Gallipoli until the middle of August, when it suddenly appeared in a large number of different units in all parts of the peninsula ; it then rapidly spread among the men of each unit. Six weeks later cases began to arise in Lemnos and Imbros. This is most easily explained on the assumption that the infection was conveyed to different parts of the peninsula by convalescent or contact carriers in drafts from the infected Egyptian camps and that the subsequent spread to the islands was caused by patients coming from Gallipoli. The epidemic reached its greatest intensity in the second half of October. Official statistics give no adequate idea of the prevalence of the disease, as large numbers of men continued on duty throughout their illness especially in November and December ; several regimental officers told me that at times as many as one-tenth of their men actually in the trenches were jaundiced. In one battalion there were 100 cases during October, but only thirty-six were regarded as of sufficient severity to be sent into a field ambulance. Epidemic jaundice was as frequent among the French as the British at Gallipoli, but intelligence personnel stated that no cases occurred among the Turks, although their first line was situated only a few yards from that of the Allies, and their sanitary arrangements were infinitely less good."

In World War I, interestingly enough, all the hepatitis occurred in Palestine, Egypt, Gallipoli, and further East in Mesopotamia. When Serbia was invaded and the Balkan campaign came on there was very little jaundice amongst either British or French troops. That is a curious thing and difficult to explain. On the Western Front there was practically no infectious hepatitis. You may look through the records of the British and the American armies at that time and you will not find infectious hepatitis listed as a major cause of disease. We know that there were small outbreaks among the French troops. One of them occurred in South-Eastern France in 1917. But why infectious hepatitis did not become prevalent on the Western Front in or before 1918 is a mystery to all of us who have an interest in this disease.

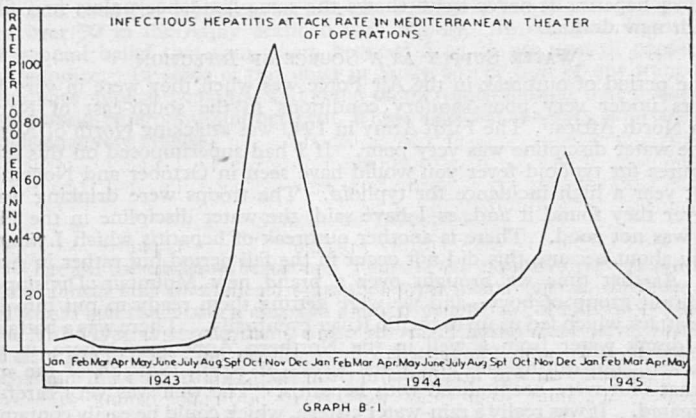
World War II

Very shortly after the beginning of World War II, when British troops began to pour into Egypt in numbers, infectious hepatitis broke out again and soon began to constitute itself as one of the more interesting and important diseases with which the medical men out there had to cope. Unfortunately, very little was written about it. War always demands some degree of security and censorship over writing, and if a disease is highly prevalent in a Command one is not going to write much about it because it might give some comfort to the enemy to know that the troops were sick with hepatitis. Therefore

the American medical men who came to Europe had very little idea about infectious hepatitis; they did not in fact think about it at all. They knew that there was a disease called catarrhal jaundice in which the people concerned felt unwell and could not eat, and one was accustomed to say to them, "Take it easy for a week or two, and above all abstain from drink, and you will be alright." I myself had this disease in 1931.

When therefore we went to North Africa we did not think much about infectious hepatitis. Our minds were full of malaria, dysentery, typhus, and a lot of other diseases, but as far as infectious hepatitis was concerned none of us was thinking about it. In January 1943, I was invited to visit British hospitals in Eastern Algeria and Tunisia. At that time there were considerable American forces in this area, but we had no hospital of our own east of Oran and our patients were accommodated in British hospitals. I remember seeing some jaundice among American patients in British hospitals, but it did not worry me because I remembered that this always occurred in war. Then in February, 1943, a rather curious thing happened. The R.A.F. had squadrons at Setif on a high plateau between Algiers and Constantine, and suddenly out of the blue sky a severe outbreak of infectious hepatitis occurred in one of the squadrons, but the other squadrons were free of it.

During the summer of that year we did not see much hepatitis. Instead we saw lots of people with sand-fly fever and malaria. Something that was rather mysterious was happening. I was all that summer in Sicily and I did not get back until the end of August. Late in July, in Oran, there were a number of cases of hepatitis, in the 34th Division which was getting ready for the invasion of Italy at Salerno in September. Shortly after getting back from Sicily I went up to Tunisia and was amazed at the number of individuals in hospitals whom I found infected with jaundice. I went to some of the British hospitals in the area and found the same thing there. Then, in September, the epidemic exploded and all over the area from Sicily and from



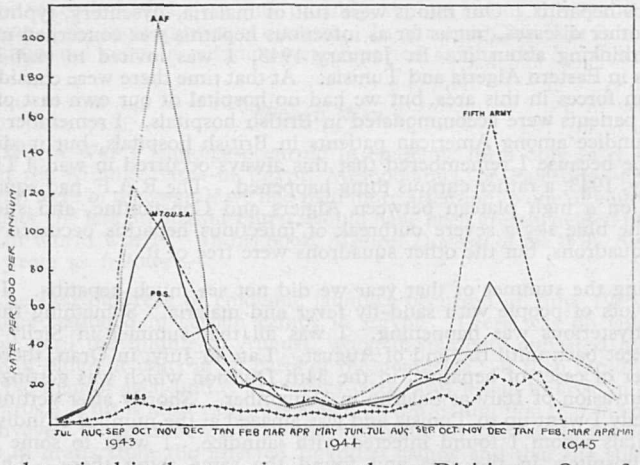
GRAPH 8·1

Italy came flocks upon flocks of patients with infectious hepatitis. I show a slide illustrating the incidence of this disease over a period of 2½ years. It shows the attack rate in the Mediterranean theatre of operations. You will observe that there is a small peak in February, 1943, then a period of quiescence during the summer, and in September an enormous peak with 100 cases infected per 1,000 troops. If this had continued for twelve months there would have been 100 people developing hepatitis out of every 1,000 people in the theatre.

That epidemic broke sharply, and the level of morbidity was low again in April and May, 1944, though it never reached the low level of the summer of 1943. In the fall of 1944 hepatitis again became epidemic in our army, but in the fall of 1945 there was no epidemic. The latter period was after the war was over and the troops were in garrison. I show in a further slide an analysis of the cases in the various sections of the Forces. The epidemic

was heavy in 1943 in the Fifth Army, but heaviest in the Air Force where there was a terriffic outbreak. This was not in the Tactical Force, but in the Heavy Bombing Force, which had come over in the fall of 1943. In the following year we found quite a different picture. The Fifth Army at this time was the unit which had the great amount of hepatitis, but I might add that this

Incidence of Infectious Hepatitis in the Army, Air Force, Base Section and M.T.O.U.S.A.



Army had received in the meantime several new Divisions. One of the important things about hepatitis is that if any unit has passed through one epidemic period of hepatitis it never again shows the same incidence unless it is filled up with new drafts.

Water Supply as a Source of Infection

The period of outbreak in the Air Force was when they were in very bad quarters under very poor sanitary conditions to the south-east of Naples and in North Africa. The Fifth Army in 1943 was attacking North of Naples and the water discipline was very poor. If I had superimposed on this chart the figures for typhoid fever you would have seen in October and November of that year a high incidence for typhoid. The troops were drinking water wherever they found it and, as I have said, the water discipline in the Fifth Army was not good. There is another outbreak of hepatitis which I want to tell you about because this did not occur in the fall period but rather in April, 1945. At that time we brought over a brand new Mountain Division—a magnificent group of boys—and we were getting them ready to put into line for the attack which led us up to the Po River eventually. There was a battalion which drank water from a well in the Northern Appenines where it was bivouacked, and during the first three weeks of April, 1945, 86 of the men from that unit were hospitalized with hepatitis. The well was very carefully investigated. It was really a rain-water cistern, which could be easily contaminated. Some of the water was bottled and sent home for investigation and eventually produced infectious hepatitis in volunteers.

Racial Incidence

In our own forces there was a marked variation in susceptibility as between our negro and white troops ; 17 per cent of our troops in Italy were negro. For every negro who developed hepatitis ten non-negros developed it in our Army. That racial difference has been very constant in the Pacific and in other places.

I should now like to show you the variations which exist in relation to hepatitis, dysentery and other diseases among the British, Canadians, Australians, Indians and Africans. For every hundred cases of hepatitis in the British Forces in the Central Mediterranean, 353 Canadians had the disease, 677 New Zealanders, 59 Indians and 98 Africans. For every hundred British

troops who had dysentery, 76 Canadians had it, 202 New Zealanders, 106 Indians and 134 Africans. Taking all enteric diseases, for every hundred British there were 191 Canadians, 256 New Zealanders, 32 Indians and 38 Africans. It should be added that it was rather natural for the Indians and Africans to continue on with mild dysentery without going sick and for the cases not to be reported, and this may bias the figures with regard to these races. But the curious thing is that the figures for the Canadians and the New Zealanders were so high.

I should like to end this description by telling you what happened when three Divisions which had had a good deal of hepatitis were sent up in the attack on Southern France in September, 1944. In November they began to come in contact with fresh American Divisions who had been fighting through from the Normandy coast. Within a month or two months after any American Division had had contact with any of those three Divisions, hepatitis began to break out in these fresh Divisions. Nowhere else in the West did hepatitis break out, so that this constituted an interesting epidemiological problem in the American Forces. Hepatitis broke out amongst contacts of the 1st Canadian Corps which moved out to Italy early in 1945. This happened after this Corps was moved to Holland.

We can say as a result of studies in global incidence of this disease, that if you take troops in the Mediterranean area—troops from North America or the British Isles or the North-Western part of Europe into the Mediterranean area, into Burma, into India, into certain areas of the Pacific, into the Philippines, you can expect outbreaks of infectious hepatitis because the disease is endemic in all those areas.

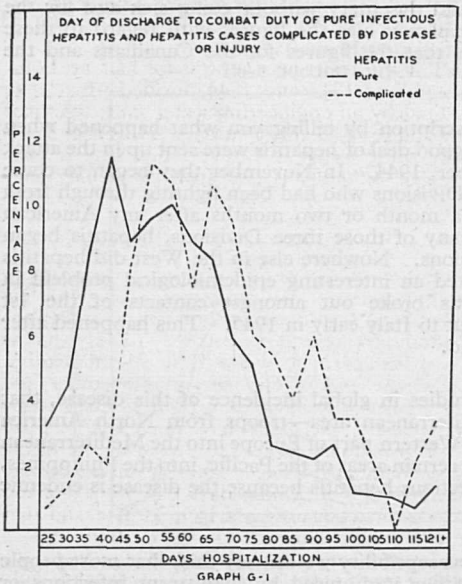
As to the relation of age to susceptibility we can say this, that most people who reach the age of 30 are either immunised by inapparent infections or have had catarrhal jaundice, so that the incidence of infectious hepatitis in men over 30 in the Army declined very rapidly. In our own country it is our general belief that somewhere between 5 or 10 per cent of people have had jaundice. In some of our units in Sicily 65 per cent of our troops were down with clinical hepatitis, and some of the units showed that possibly the figure could be around 100 per cent, if one included the very mild as well as the more severe attacks.

Spread of Infection

What are the epidemic features ? There is the explosive type which I have talked about, and then there is another type which has an insidious onset and which will run a course through a unit over a period of four or five months. This is the type of spread that we also see in orphanages and certain schools—the only places where we see much of hepatitis at home. The hepatitis will occur and the outbreak will last for perhaps eight or nine months.

How is it spread ? The most frequent way these epidemic outbreaks occur is by means of contamination of water or food at a common source, and as I will point out later in the very large epidemics we believe that there is more chance that they were water-borne than that they might have been food-borne. An interesting thing which a study of the British Army in the Middle East brought out was that the incidence of this disease was greater among officers than among men. In our Army that was not true and it was a question as to why the difference arose. I think that what it boiled down to was this : our mess was much poorer and often in the field units every officer had to wash his own mess gear. He stood in line with the men for this purpose and there was not the same possibility of contamination through water or through food that existed in the British officers' mess. The other ranks in the British Forces stood in line as our men did, and hence experience a lesser incidence of the disease.

Infectious hepatitis may be passed on occasion from person to person though we do not think this is very common. We do not find nurses, orderlies, doctors or visitors commonly getting infected from patients with hepatitis in hospital. As far as we know that occurs but rarely.



GRAPH G-I

Mortality.

The next thing that you might want to know about when you have an epidemic such as I have portrayed is how many cases do you have and what is the mortality. We had 36,000 cases of infectious hepatitis in 2½ years in the Mediterranean area. The average stay in hospital was 60 days. Therefore you can see from our point of view that it was a very serious outbreak. Moreover, most of the hepatitis was in the combat or flying personnel. You can see the implications of that so far as manpower in the Mediterranean was concerned. As to the mortality, the case mortality in 1943, with 15,000 cases, was 0.09 per cent; in 1944 it was 0.29 per cent; and in 1945 0.31 per cent. We believe that in an extensive outbreak the chance of an individual who is infected of dying from hepatitis is about 1 in 333.

RELATION OF MORBIDITY AND MORTALITY IN INFECTIOUS HEPATITIS

Year	Total Cases	Rate 1000 /Yr.	Deaths Number	Mortality	
				Per Cent.	Ratio of Deaths
1943	15,835	35	14	.09	1 per 1,131
1944	15,038	22	45	.29	1 per 334
1945	5,709	25	18	.31	1 per 316
Total	36,582	—	77	.21	1 per 475

What about the ætiology of this disease? If you refer back to any textbook which is ten years old you will find references to what was then called catarrhal jaundice. The old theories of causation were accepted. But a great deal of work has been done since then which shows that the ætiological agent of infectious hepatitis is an extremely interesting one. The first experimental transfer of the disease was done by Vogt in Germany in 1942; he transferred the disease to human volunteers by feeding them on the duodenal contents of patients suffering from infectious hepatitis. In this country in 1943 Cameron demonstrated that there was a virus in the blood of patients in the acute phase of the disease which could be transferred by means of blood

from one patient to another. In the next years Bradley and others showed very definitely that up to 12 or 15 days after jaundice had appeared the virus of the disease was present in the stools. It is our belief that these extensive epidemics in the Italian and African theatres of war were the result of contamination of the water by fæcal material because they were so widespread and so closely related to poor water supply.

This is an extraordinary virus. It will resist heat at 56°C for half an hour. If we had given our troops in the fall of 1943 and 1944 purified—that is to say, chlorinated—water, as distributed by an engineering water unit, the virus would have gone through the filters and resisted chlorination. Thus it presents a very special problem. The only thing to do is to over-chlorinate heavily the water and then neutralise it. The difficulty is that such water may have an unpleasant taste.

Social Implications

We are faced from the point of view of any future war with the problem of how we are going to cope with hepatitis. You may not agree with me concerning what I am going to say about the social implications of infectious hepatitis in relation to our Army in Italy. I have to tell you very frankly that as a result of the large outbreaks of hepatitis at critical points in the war in October and November, 1943, and again at the end of October, in November and December, 1944, that if we had not had such losses amongst our combat troops from infectious hepatitis it seems likely that we might have been able to push over at Cassino and been in the Appenines much earlier, and possibly the whole character of the war might have been changed. That is speculation, but it may not be wrong. When you consider the number of man-days that were lost and also the fact that these figures I have shown you are only approximate, and that we do not know the real incidence because many of the boys having only a little jaundice stayed on duty and carried on although not feeling well, the magnitude of the problem is evident. I have referred to cases with only frank jaundice so far. About 20 per cent of the cases we saw with definite hepatitis had no jaundice.

Serum Hepatitis

I must say a word about the other type, namely, serum hepatitis. The clinical course is the same as in infectious hepatitis. The incubation period is very much longer. In infectious hepatitis it is 17 to 40 days, but in serum hepatitis, especially if the serum is introduced in small amounts, it is from 60 to 180 days.

The first outbreaks of serum hepatitis occurred in Germany in the 1880's. Years later it was suggested that the virus was introduced in the course of treatment of cases in which arsphenamine and bismuth had been used. That was confirmed in 1943 and 1944 in this country. In early 1942, when we were using yellow fever vaccine for mass inoculation for the first time in South America, there were outbreaks of serum hepatitis following the vaccination, and at about the same time there were outbreaks in orphanages in this country after the immunisation of children with convalescent measles serum. Late in 1941 and early in 1942 we decided to vaccinate all the American troops with yellow fever vaccine—a vaccine produced by the Rockefeller Institute. The vaccine was suspended in serum. The standard procedure for obtaining that serum was to take 24 people, who were bled, the serum was separated, mixed together, and sent to New York. In the spring I began to hear rumours that jaundice had been found in the camps. I went to a meeting in Washington in 1942 and was told about some general officers who had jaundice and that there were a number of cases in the hospital at Fort Sheridan.

The next few months revealed a perfectly fantastic story. Throughout the Army there were 67,000 cases, and very quickly the trouble was traced to the yellow fever vaccine and, remarkably, only to certain batches of that vaccine. For example, none of this trouble arose in the Navy. If the Navy men had been vaccinated with the Army vaccine there would have been several thousand cases of serum hepatitis in the Navy.

Serum hepatitis is a disease which became quite prevalent in certain areas as a result of infection from person to person by syringe or needle, or by giving plasma. But now all syringes are separately sterilised. Sterilisation should be carried out between each vaccination, and, finally, we know that we can eliminate it so far as plasma is concerned by irradiating the plasma, though this is a very expensive process.

The relation between serum hepatitis virus, which has the same resistance to heat and to chlorination, and the infectious hepatitis virus is not clearly distinguished. We know that serum hepatitis virus is found only in the blood, and unless the blood or some blood product is transferred the disease cannot be acquired.

We can say that it is our hope that if we have to go into another war—and I sincerely trust we never do—that all medical students and young doctors will be well versed in infectious hepatitis as a disease and as a problem in the Forces, because the disease will certainly break out if large bodies of troops are taken into those parts of the world in which this disease is endemic.

Trees

Trees are the signatures that places write
  In vivid characters against the sky—
Elms bring far cricket pitches into sight,
  And poplars point where silver streams slip by.
For me, tall chestnuts spell my gabled home,
  And beeches are the grace of Savernake ;
Oaks are the Surrey woods when spring has come—
  A loveliness that checks the breath's intake.
But when I see the mottled peeling plane,
  My mind leaps back refusing to be stayed,
And up the well-worn steps I stride again
  To win the shelter of the Colonnade,
Through which I glimpse with eager anxious eyes
  The patch of green confirming—"This is Guy's ! "

E. A. PENNY.

ACADEMIC

July		
		Exhibition. Surgical Department. "Rectal Bleeding."
17th.	12.00.	Dr. Gösta Lindblom. (Stockholm). Clinical Lecture. "An Orientation in Bite-Analysis and the Fundamental Role of Balanced Articulation in Modern Dentistry." Dental Theatre.
20th.	1.00.	Sir Heneage Ogilvie. Clinical Lecture.
21st.	12.00.	Dr. F. A. Arnold (Maryland). Clinical Lecture. "The Use of Fluorides for the Control of Dental Caries." Anatomy Theatre.
	1.00.	Professor M. R. Kark, M.D., M.R.C.P., Associate Professor of Medicine University of Illinois. Clinical Lecture.
22nd.	10.00.	Surgical Clinico-Pathological Meeting. Anatomy Theatre.
25th.	1.00.	Dr. Honor Smith. Clinical Lecture.
27th.	1.00.	Mr. Massie. Clinical Lecture. "Injuries of the Elbow."

SPORT

July		
22nd.	2.30.	Cricket 2nd XI *v.* Old Wimbledonians .(Away.)
23rd.	2.30.	Casuals. (Home).
29th.	2.30.	Cricket 1st XI *v.* Metropolitan Police. (Away.)

The Mixture as Before

By L. G. Morey, L.D.S., R.C.S.(Eng.), D.D.S.(N.U. Chic.)

WE are all of us in a profession, which, in assuming responsibility for the health of our fellow human beings, requires men and women of strong character, capable of setting and maintaining a high standard in moral and ethical values. Many of us at the present time are suffering to a greater or lesser extent from mental and physical strain, and for this reason it might be well worth our while to pause for a moment in order to afford ourselves time to think a little more about our work, not so much from the practical but from the ethical point of view.

Much criticism has been and is being levelled at the discrepancies in the Health Service, the reduction in the scale of fees, the loss of the private patient etc.—so much criticism in fact that one may be tempted to wonder sometimes to what extent our actions are being governed by selfish, and to what extent by humanitarian motives.

Dentistry as a Vocation

Following this train of thought it would be interesting to ascertain what motive prompted each one of us to choose dentistry as a career. Many no doubt discovered during childhood that they possessed a high degree of manual dexterity, others had fathers who were anxious for their sons to follow in their footsteps, whilst others may have entered the profession solely for the purpose of earning a living. For my part, I have to admit that the realisation that I would in the process obtain five years (or more) of cricket and football at a London hospital weighed strongly with me.

I wonder how many of us entered dental school with the firm intention upon qualifying of placing our knowledge and skill at the disposal of all classes of the community, realising that the responsibilities of our profession would necessitate a considerable amount of self-sacrifice on our part. For should not the practice of dentistry, which is so closely associated with health, and therefore with life and death, be regarded rather as a vocation than a profession ?

But now that our student days are over and we have reached the age of professional maturity, what is our attitude towards practical dentistry from the moral point of view ? What are our plans for the future ? What should they be and what will they be ? Shall we as in previous years remain content indefinitely to treat the effect of dental decay rather than the cause ? Shall we continue to concentrate our main efforts upon the mass extraction of teeth and provision of dentures, upon intricate bridgework and upon large restoration, or shall we make a determined effort to attack caries at its root by research into methods of prevention, the provision of a first-class service for children, and a nation-wide health education programme for the masses ?

It seems to me that this is the major issue to be faced in dentistry today, that it must be faced, and must be decided once and for all and sooner rather than later.

Dental Care of Children

In reaching a decision it might facilitate matters if we were to ask ourselves what standard of dental health and what type of treatment would we wish to provide for our own children, and then apply it generally, for surely the standard we set for our children should not be denied those of our next door neighbour. The answer is unmistakably clear and may be summed up in the well known phrase, " Prevention is better than cure."

It follows then that with this object in view a most concentrated effort will be required by every member of the profession to provide a thoroughly efficient priority service for " the priority classes," and this will require the allocation of a greater percentage of our time, and a higher standard of treatment than hitherto, not only for children at school, but also for those between the most important ages of three and five.

This, unfortunately but inevitably, will mean that less time will have to be spent upon adult dentistry, but this would be a temporary measure and entirely justifiable, and should meet with general approval since the great majority will doubtless agree that a parent who insisted upon some material advantage for himself to the exclusion of his offspring would surely be held in very low esteem.

It will also mean under existing circumstances and in many cases a temporary lowering of income, but would not our loss in this respect be more than recompensed by the peace of mind which would result from the knowledge that we had attempted what after all is no more and no less than our moral obligation to the young people of today and the adults of tomorrow? The truth of the old saying, " The best things in life are free " will be appreciated by all those who pause to consider what really are " the best things."

If this programme is conscientiously attempted by a sufficient percentage of the profession, a vast amount of unnecessary wastage of time will be avoided, since the dental treatment of the future will consist to a great extent in the provision of a maintenance service which could be handled by the profession without any great increase in personnel, and the possible alternative of increasing our numbers by the introduction of semi-trained dental ancillaries will be rendered unnecessary once and for all.

Dilution of Personnel

I sincerely hope that it will never be said of present members of our profession that this " dilution " as it is termed, was brought into being because there were not enough of us with a sufficiently strong sense of responsibility towards humanity to make the treatment of the " priority classes " our own personal priority whatever our reasons or whatever our motives for not so doing.

The introduction of dental nurses for the express purpose of extracting and filling the teeth of young children would, in my opinion, be a retrograde step and a great evil.

In connection with the possibility of putting into practice in this country a scheme such as is being utilised in New Zealand, I would like to enquire of those most enthusiastically inclined for a scheme such as this whether they will be prepared to be the first to submit their own children (if they have any) in order to provide the initial training and experience for these dental nurses?

When I was a student at Hospital, even though at that time Orthodontics appeared to be more or less the " be-all and end-all " of dentistry for children, none of us was permitted to enter this department to perform conservative treatment on children until the time had almost arrived for us to take our final examination. One assumed therefore that it was considered sufficiently difficult to operate upon the teeth of children to merit a period of at least eighteen months tuition on the adult mouth as a pre-requisite to entering the department. It follows, therefore, that it would be morally wrong to allow young children (who have no voice themselves in the matter one way or the other) to be used in the training of dental nurses without their first having been afforded the facility of a very considerable experience of practical dentistry in the adult mouth.

The somewhat light-hearted talk one hears from time to time of introducing dental ancillaries for the purpose of saving primary teeth rather leads one to the conclusion that there are still a number of men in the profession who are unaware of the importance of this branch of dentistry, and of the skill required in performing it.

There are many reasons which may be brought forward to justify the claim that " pedodontia " is the most important and the most difficult branch of dentistry, and those which most readily come to mind will include :—

1. The patience, care, and psychological handling involved which will influence a child's whole future outlook upon the importance of a sound dentition, and his or her attitude towards the dental profession in general.
2. The many factors which make it difficult to perform a high standard of conservative treatment on the deciduous dentition, such as the proximity of the pulp to the surface of the tooth, the control of the tongue and saliva, the small size of the oral cavity, and the restlessness of the patient—all of which put a premium upon rapid yet efficient work.
3. The admitted importance of complete and perfect function of the deciduous molars, because of the extent to which growth of the jaws and face depend upon that factor.
4. The proper care of deciduous and young permanent teeth will obviate the necessity for many crowns, bridges, large restorations, extractions, and dentures in later years and will considerably reduce the number of cases requiring orthodontic correction.
5. All the known methods of preventive dentistry must in the first instance be applied to children simultaneously with conservative treatment.
6. Early training in oral hygiene will induce the habit of dental care and reduce the likelihood of many future carious and periodontal lesions.

There is no doubt that failure to appreciate the importance of many of these factors in the past, coupled with some none too creditable excuses for ignoring this type of work, such as, " I don't like children," " I've no patience with them," " There is not enough money in it," etc., has resulted in a sad neglect of the children's teeth followed by an unnecessary amount of ravage to be repaired in adult life.

What preliminary steps then can and must be taken immediately to improve the present state of affairs ? First, perhaps, a greater sense of responsibility concerning the dental health of the young and the adolescent by each and every member of the dental profession, and the realisation that to effect any real and lasting improvement all must be ready and willing to accept their share in the attempt. Second, a greater emphasis to be laid upon moral and ethical standards by examining boards when interviewing prospective entrants to the dental schools, and greater emphasis in this respect by the teaching staffs throughout the whole period of hospital training. Third, a much greater emphasis on the importance of children's dentistry in the teaching schools by the introduction of separate, self-contained pedodontic departments in close connection and co-operation with the department of preventive dentistry.

These basic suggestions will no doubt be supplemented and amplified by those of us sufficiently interested and enthusiastic to spend a little time and thought upon this most urgent subject.

In conclusion I would like to quote from the words of Josiah Gilbert Holland, whose sentiments might be taken as a guide to what must surely be the standard we, in a profession such as ours, must set ourselves to ensure that we are worthy to be included in it :—

" God give us men, a time like this demands
Strong minds, great hearts, true faith and ready hands ;
Men whom the lust of office does not kill ;
Men whom the spoils of office cannot buy ;
Men who possess opinions and a will ;
Men who have honour, men who will not lie ;
Men who can stand before a demagogue
And damn his treacherous flatteries without winking ;
Tall men, suncrowned, who live above the fog
In public duty and in private thinking."

With ideals such as these there need be no doubt that our profession will at all times be respected and made a worthy one for our successors.

Reviews

Aids to Obstetrics. By LESLIE WILLIAMS. Baillière, Tindall and Cox. *Price* 5*s.* 6*d.*

For the undergraduate this book provides a full yet readable summary of the subject; its limited compass makes it, of necessity, dogmatic. Little space is given to the care of the newborn. Most topics are dealt with very satisfactorily and the innovation of a chapter on psychiatry and childbearing is most commendable, The section on heart disease, however, is scanty, as also the indications for Cæsarian section and premature induction. There are one or two notable omissions such as the importance of prior arrangements for forceps and anæsthetist in breech deliveries and the association of toxæmia with twin pregnancy. These, however, are incidental blemishes in an otherwise adequate member of the aids series.

A Textbook of Psychiatry. By HENDERSON and GILLESPIE. 7th Edn. Geoffrey Cumberlege, Oxford. *Price* 52*s.* 6*d.*

In the space of 23 years this textbook has earned the reputation of providing the best introduction to General Psychiatry available in the English language. It is not hard to see why. To convey in 740 pages an indication of the scope of an enormous subject without making the presentation overwhelming or disastrously unbalanced; to retain throughout a reasoned objectivity and a fine clarity; and to combine interest, vigour and sincerity with a native caution in judgment calls for the best that good teachers can do. Here it has been done.

The errors of glibness, superficiality or dogma cast a wide net for the authors of textbooks, but here they are almost entirely avoided. For the intelligent student, aware of a need to know something reliable about psychiatry, this is a most propitious beginning.

D.C.S.

Elementary Bacteriology and Immunity for Nurses. By STANLEY MARSHALL. 2nd Edition. Lewis. *Price* 6*s.* 6*d.*

This textbook is a useful introduction to bacteriology for the student nurse. The clear presentation of special laboratory tests will help the student to understand many of the common investigations.

As a new section on tuberculosis has been added to this second edition it is a pity B.C.G. immunisation has been dealt with so briefly.

The illustrations are good and the book is well produced.

M.G.S.

A Short Textbook of Radiotherapy. By J. WALTER and H. MILLER. Churchill. *Price* 28*s.*

This book is primarily intended for Radiographers studying for Radiotherapy, and except for anatomy and physiology, covers most of their syllabus. To do this in 436 pages is in itself an achievement and the authors are to be congratulated in not making it a "cram" book.

The book is well illustrated and produced. Used in conjunction with a course of lectures and supplemented by reference to some of the specialised books on physics and radiotherapy, this book provides a welcome basis for the training of Radiographers. It is strongly recommended for all Radiographers wishing to take up Radiotherapy.

A.B.W.

Industrial Health. By R. PASSMORE and CATHERINE N. SWANSTON. Livingstone. *Price* 4*s.* 6*d.*

This small volume gives student or practitioner a working knowledge of industry in its relation to medicine; its pages contain an assortment of useful information in compact yet readable form. Strongly recommended.

Medicine and Mankind. By ARNOLD SORSBY. Staples. *Price* 12*s.* 6*d.*

A good example of how medical information can be interpreted so as to be readily understood by the general reader. For the medical student, however, continually caught up in recurring demands for the display of detailed knowledge a general survey of health and disease is unlikely to have a wide appeal. That is not to deny its value to the pre-clinical student. The later chapters, in particular, form a useful introduction to the understanding of infection and illustrate the importance of environmental influences. The figures and tables given in this edition would have been more interesting had they been brought reasonably up to date.

Medical Jurisprudence and Toxicology. By JOHN GLAISTER. 9th Edition. Livingstone. *Price* 35*s.*

Glaister's authoritative and much respected textbook continues to enlarge its scope with new features on Liability of Hospitals and Nursing Homes, the Law on Autopsies, Artificial Insemination, Rh sub-types, Atomic Injury, Beryllium and Radio-active substances, together with revisions of Poisons Law, National Insurance and other statutory law changes. The text has, in consequence, exceeded any conceivable requirement of the average student in his study of Forensic Medicine. It is a prodigious and sustained effort to present a complete guide to the expert and a suitable reference for counsel who seek a chink in the armour of the prosecution's case.

This type of textbook is a monument to Scottish teaching, meticulously detailed, liberally illustrated—often in excellent colour, and likely to maintain the tradition Glaister père established early in the century and so ably maintained since by Glaister fils. It is the expert's vade mecum.

K.S.

Osteology for Dissectors. By R. KING HOWAT. Kimpton. *Price* 15*s.*

This small book is hardly in keeping with present trends in teaching. Although it includes a small amount of applied anatomy and some discussion on muscles it is without related information about other systems.

As a limited account of the subject it is clear and concise but functional considerations are sketcheley treated. The illustrations are at first sight startling, blank outlines and apparently rough, but if used as the author suggests they, and the whole book, may prove most helpful for speedy revision.

B.P.

Major Symptoms in Clinical Medicine. By J. ALMEYDA. Kimpton. *Price* 25*s.*

The idea of discussing the main symptoms with which a doctor may be faced is a good one and the arrangement of the book is sound. There are, however, a large number of inaccurate statements which seriously detract from its value. For example, auricular fibrillation is stated to be invariably permanent and to be associated with a ventricular rate of over 350 beats per minute.

Although possibly of some value to the M.R.C.P. candidate who is in a position to sift the material he reads for himself, it cannot be recommended to students in its present form.

K.S.M.

B.M.A. Proceedings of the Annual Meeting 1949. Butterworth. *Price* 25*s.*

A number of very valuable papers presented at the annual meeting of the B.M.A. in 1949 are here preserved in most attractive form. As a text this is most valuable for reference, perusal and contemplation.

Clinical Examination of Patients. By JOHN FORBES and W. N. MANN. Arnold. *Price* 18*s.*

This is a very well written book which affords an admirable introduction to the student entering upon his clinical course of training. It represents, in fact, an extended and more comprehensive version of the typed notes which have been customarily handed out to members of the pre-clinical class at Guy's. Therein lies the value of this work—and its weakness, for though it can be strongly recommended to all students about to enter the wards, eighteen shillings is a lot of money to spend on yet another volume which can scarcely be retained as an adequate fund of reference.

Valiant Patients

By M. D. WARREN, M.B., B.S.

ONLY a few of the patients who have been the stepping stones of medical advance have had their names recorded in medical history. The most famous of these valiant people are probably Alexis St. Martin, whose stomach was observed by Beaumont, and "Tom" who was similarly studied by Wolf and Wolff. Bright mentions all the names of the twenty-three patients on whom he studied albuminuria and dropsy (Report on Medical Cases 1827). Another two patients are here rescued from this unnamed multitude from whom doctors and their patients have gained so much.

Dame Mary Page (d. 1728) suffered during the last six years of her life from massive ascites. As Mary Trotman she married Sir Gregory Page (1st Baronet) in 1688 and they had four children (two sons and two daughters). She was a very devout woman and a devoted member of the Baptist Meeting House in Devonshire Square. Sir Gregory Page was a member of Parliament, but beyond that there seems to be little available information about him. The elder son, also called Gregory, became the second baronet on the death of his father in 1720. He, or his father, like Thomas Guy had made a considerable fortune out of the South Sea Company and had sold his shares before the bubble burst. With this money he is reputed to have built a magnificant edifice at Wrinklemarsh near Blackheath, the front door of which is said to have had gold knockers and handles. This building was pulled down in 1787 when the then-owner Sir Gregory Page-Turner (grandson of the first Sir Gregory Page) suffered a financial eclipse. The second Sir Gregory was evidently a friend of Thomas Guy as he was named as the first President of Guy's Hospital by Guy in his will. This office he held from 1725 to 1730. Guy had nominated him for life and why he retired in 1730 is not clear.

The younger daughter, Sophia, of Dame Mary married Lewis Way who was another director of the South Sea Company. Lewis Way was President of the Hospital from 1759 to 1771 (Wilks and Bettany, Biographical History, p.147). Wilks has also recorded (p.130) that there was a surgeon called Lewis Way who succeeded Sharp in 1757 and continued in office until 1773. It would appear that a further investigation into the Hospital records should be made to establish this remarkable coincidence of two people with the same name holding different offices in the same Hospital during the same period of time.

As already mentioned Dame Mary Page suffered from massive ascites and she was treated for this complaint by Dr. Richard Mead, the famous physician of St. Thomas's Hospital. Dr. Mead was also a friend of Thomas Guy and advised him about the founding of this Hospital. It seems probable that he might also have recommended his patient's son (the second Sir Gregory) as first President. Dr. Mead's treatment of Dame Mary has been recorded in a biographical book called "The Golden Headed Cane" which gives a fascinating account of the Cane's life with his successive masters who were Drs. Radcliffe, Mead, Pitcairn and Baillie. (The Cane now lives in retirement at the Royal College of Physicians.) The Cane records "My master (i.e. Dr. Mead) had often considered what could be the reason that, in cases of persons labouring under dropsy, when the water is suddenly drawn off, the patient swoons and frequently dies on the spot. A simple expedient occurred to him, which was this: during the operation of tapping, to make external pressure by the hands, and afterwards to apply a bandage to the belly." The success of this manœuvre is recorded for posterity on the tomb-stone of Dame Mary Page in Bunhill Fields, City Road, Finsbury, for her epitaph reads:

Here lies Dame Mary Page
Relict of Sir Gregory Page, Baronet.
She departed this life, March 11th, 1728,
In the 56th Year of her Age.
In 67 months she was tapped 66 times,
Had taken away 240 gallons of water,
Without ever repining at her Care,
Or ever fearing the operation.

Although the mother of the Hospital's first President was probably the first to have such details recorded on her tomb, she cannot claim the record for the quantity of fluid removed. A very similar epitaph occurs in the Church Yard of St. Mary Magdelene, Bermondsey. (At present this stone cannot be seen owing to alterations in the church yard). It is not known where or by whom this second patient was treated, but as she is buried so near Guy's it is not unlikely that she may have been treated by one of its sons. Her epitaph reads as follows :

Here lie the remains of Susanna Wood,
Wife of Mr. James Wood of the Kent Road,
Mathematical Instrument Maker,
Who after a long and painful illness which she bore
With the greatest fortitude departed this life
the 16th of June, 1810,
In the 58th year of her age,
She was tapped 97 times and had 461 gallons
Of water taken from her without ever lamenting her
Case or fearing the operation.

Correspondence

Guy's Reunion in Egypt

SIR,—May we take this opportunity of sending greetings from Egypt to the parent Hospital to which we all acknowledge our indebtedness for past training and fellowship. Thanks to the arrival of Miss Enid Baker, we have been stimulated to look out for all Guy's men and women in the country, and the result was a welcome surprise. At a recent reunion luncheon party held on 6th May at the Turf Club in Cairo, fourteen of us gathered together—and others from the Canal Zone regretted they could not join us. Professor Shaheen (1904-1910) was at the head of the table, and we send special greetings to his son, who is now in England studying at Guy's. Messages of goodwill were read from the Guy's Nurses' League and others who knew of our meeting.

We all send a welcome to any Guy's men and women who seek appointments abroad, to join us in a country where the initiative, resourcefulness and practical experience gained at Guy's are urgently needed at this present time.

We sign ourselves,

Yours, etc.,

H. SHAHEEN (1904-1910) late Professor of E.N.T. Surgery at Kasr el Ainy Hospital.
JACQUES ALLCEE (1912-1918) Dental Surgeon.
CYRIL HALL (1922-1927) Dental Surgeon and late Professor of Dental Surgery.
DORIS HALL (1923-1927) Cairo.
ENID BAKER (1923-1927) Chief Nursing Officer, Universities' Hospitals' Administration.
NORAH MACKAY (1923-1928) Cairo.
VIOLET GLOVER (1927-1933) Cairo.
WALTER H. HAMILTON (1928-1938) Cairo.
M. F. CREAGH (1928-1931) Canal Zone.
FLORENCE M. SHACKSHAFT (1929-1933) Matron, Anglo-American Hospital, Cairo.
M. A. ARAFA (1930-1933) Professor of Medicine at Kasr el Ainy Hospital.
H. F. LUNN (1934-1940) C.M.S. Hospital, Old Cairo.
BARBARA RIGG (1937-1943) Government Hospital, Alexandria.
AUDREY J. POPE (1942-1946) Government Hospital, Alexandria.

C.M.S. Hospital,
Old Cairo, Egypt.

Soil Fertility and the Health of the People

SIR,—It is a constant feature of human behaviour that new ideas and theories should provoke the most violent reactions of anger and ridicule. In the controversy between the "chemical" and "organic" schools of husbandry, the real problem has been submerged under the human conflict that it has provoked. The issues have been still further confused by vested interests on the one side, and by faddists and fanatics, who always flock to the support of unorthodoxy, on the other.

I think it is a pity that in your recent editorial you should have dismissed the problem itself by pouring ridicule, however well deserved, on the fanatical adherents of the organic school, for the folly and lack of balance of some of its supporters is not a fair criterion by which to judge the merits or otherwise of the concept itself. Guy's has always managed to follow a tradition that combines conservative judgment with an eager awareness of all new developments in medicine, and while it has always been in the forefront with new advances, it has avoided hysterical advocacy of, or opposition to, new ideas.

As medical men we are not concerned with agricultural methods as such, but we are directly concerned with any possible effects that different methods of agriculture may have on the quality of the food grown. If it is demonstrated that certain methods of food production, preservation or storage, result in foodstuffs which cannot maintain people in a state of full health, we raise our voices in protest, and this we have done on many occasions in the past with beneficial effect.

It has been suggested that crops grown with the aid of processed mineral fertilisers are lacking in the qualities of stamina and resistance to disease, and when used as food are incapable of conferring a normal degree of health and disease resistance on the animals (or humans) that consume it.

In your editorial you state that there is no evidence to show that food grown by organic methods has any merits over food grown by chemical means. It is true that final proof is lacking one way or the other, as the necessary controlled experiments have not been carried out. There is, however, not only a large amount of circumstantial evidence to support the tenets of the "organic school," but also a mass of very striking chemical and biological facts in confirmation of their theories.

The results which have already been obtained, especially by pedigree stock breeders, who have practised rational organic methods owing to the economic necessity of raising healthy stock, provide a very strong case for the investigation of this whole problem from the point of view of human health. Indeed, it will almost certainly provide by far the most fruitful field of research in the future for those interested in the problems of true preventive medicine.

Yours, etc.,

T. T. STAMM.

Keats' House,
Guy's Hospital.

BIENNIAL DINNER

As already announced the Biennial Dinner is to be held this year at the Connaught Rooms on Friday, October 6th. Preliminary notices are being sent out now. Replies, with cheques (£1 1s. 0d. each), should be sent to the Secretary, Mr. O. Gayer Morgan, as soon as possible.

Hospital Information, etc.

APPOINTMENTS.

GUY'S HOSPITAL
JUNIOR STAFF, 1950-51.

The following appointments and reappointments to the Junior Staff for the period commencing October 1st, 1950, have been made by the Board of Governors. Other appointments will be announced as soon as possible :—

Whole-Time Appointments

Medical Registrars:
Batty Shaw, A. — Trounce, J. R.
Thorne, M. G. — Irvine, R. E.

Junior Medical Registrars:
Finnegan, T. R. L. — Reynolds, G. L. L.
Fox, W.

Surgical Registrars:
Guerrier, H. P. — Tibbs, D. J.
Ticehurst, R. N. — Large, P. G.

Obstetric Registrar:
Hammond, G. T.

Genito-Urinary Registrar:
Horton, R. E.

Orthopædic Registrar:
Drew, A. J.

Chief Assistant, Anæsthetic Dept.
Carnegie, D. M.

Anæsthetic Registrar:
Davies, D. G. L.

Chief Assistant, Clinical Pathology:
Stephens, B. J.

Assistant Clinical Pathologist:
Enticknap, J. B.

Hæmotological Registrar:
Stoddart, F. G.

Chief Assistant, Neurology:
Parsonage, M. J.

Radiotherapy Registrar:
McArthur, J. M.

Chief Assistant, Throat and Ear Dept.:
Salmon, L. F. W.

Chief Assistant, Diagnostic Radiology:
Thomson, W. N.

Diagnostic Radiology Registrar:
Swann, G. F.

Physiotherapy Registrar:
Van Diggelen, H. T.

EVELINA HOSPITAL

Assistant Clinical Pathologist:
Masters, P. L.

Medical Registrar:
Trounce, D. Q.

Part-Time Appointments.

Orthopædic Registrar:
Addison, J. R.

Medical Officers V.D. Dept.:
Halstead, Miss J. — Stacey, Miss C. M.

Ophthalmic Registrars:
Bain, W. E. S. — Sacks, I.

Physiotherapy Registrar:
Fulton, J.

Registrar, B.M.R. and Endocrine Depts.;
De Mowbray, R. R.

EVELINA HOSPITAL

Throat and Ear Registrar:
Eastes, C. N.

Junior Dental Staff Appointments

Dental Officer, Salomon's Centre
Loader, G. S.

Orthodontic Assistants:
Parr, P. T. — Bilton, B. M.
Rose, J. F.

GUY'S HOSPITAL MEDICAL SCHOOL

The following appointments to the Junior Staff have been made by the School Council, as from 1st October, 1950, for the periods stated :—

Lecturer in the Biology Department
B. J. Rickard—re-appointment for one year.

Assistant Lecturers in the Biology Department
J. Griffith—for two years.
M. Price—for two years.

Lecturers in the Department of Biochemistry and Chemistry
M. E. Foss—reappointment for three years.
P. R. Rowland — re-appointment for four years.
I. G. Anderson — re-appointment for six years.

Lecturer in the Physics Department
A. Nightingale—re-appointment for five years.

Lecturer (part-time) in the Physics Department
R. W. Stanford—appointment for six years.

Junior Lecturers in the Anatomy Department
D. O'Keeffe—re-appointment for one year.
B. H. Pentney—re-appointment for one year.
A. V. Poots—re-appointment for one year.
O. L. Thomas—appointment for one year.

Junior Lecturer (part-time) in the Anatomy Department
P. C. Grummitt—appointment for one year.

Junior Lecturer in the Physiology Department
A. F. Ross—re-appointment for one year.

Junior Lecturer in the Department of Morbid Anatomy and Histology
D. A. Osborn—re-appointment for one year.

Junior Lecturer in the Department of Bacteriology
K. F. Anderson—re-appointment for one year.
P. J. Collard—re-appointment for one year.
M. D. King—re-appointment for one year.

Lecturer in the Department of Chemical Pathology
R. W. R. Baker—re-appointment for one year.

Junior Lecturer in the Department of Chemical Pathology
A. Tickner—re-appointment for one year.

Assistant to the Director of the Department of Clinical Pathology
W. H. H. Merrivale—re-appointment for one year.

Junior Assistant to the Director of the Department of Medicine
C. L. Joiner—re-appointment for one year.

Tutor in Charge of the Preliminary Clinical Period Class
J. C. Houston—re-appointment for one year.

Junior Assistant to the Director of the Department of Surgery
J. G. Stebbing—re-appointment for one year.

Assistant to the Director of the Student Health Service
R. R. de Mowbray—re-appointment for one year.

Assistant to the Director of the Department of Child Health
D. W. Beynon—re-appointment for one year.

APPOINTMENTS VACANT

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence on **1st October, 1950** :—

Casualty Department : Two part-time Registrars in the Examination and Casualty Departments, one for attendance on 5 sessions a week and the other for attendance on 6 sessions a week. Salary at the proportionate rate of £775 per annum in the first year.

Dental Department for Children : One Registrar for 6 sessions per week. Salary at the proportionate rate of £775 per annum in the first year.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1. to whom applications should be sent not later than Wednesday, **18th August, 1950.**

PAPERS BY GUY'S MEN

Alexander, J. M. Lubrication While Cutting Acrylic Resin. *Brit. Dent J.*, 1950, **88,** 304.

Allsopp, C. B. Absorptiometric Estimation of Mustard Gas by Means of Iodoplatinate and Starch. *J. Soc. Public Analysts* 1950, **75,** 281.

Baker, Charles, Brock, R. C., and Campbell, Maurice. Valvulotomy for Mitral Stenosis. *Brit. Med. J.*, 1950, i, 1283.

Campbell, Maurice. Refresher Courses for General Practitioners. Congenital Heart Disease II. *Brit. Med. J.*, 1950, i, 1250.

Chick, A. O. Method of Producing Enlarged Models of Teeth for Teaching Purposes. *Brit. Dent. J.*, 1950, **88,** 128.

Clegg, J. W. and others. Intermittent Dosage in the Treatment of Pulmonary Tuberculosis with Streptomycin. *Brit. Med. J.*, 1950 i, 1224.

Evans, P. R. and Polani, P. E. The Neurological Sequelae of Rh. Sensitization. *Quart. J. Med.*, 1950, **19,** 129.

Forman, L. Pemphigus of the Mucous Membranes with Symblepharon. *Proc. Roy. Soc. Med.*, 1950, **43,** 397.

Harley, R. H. S. and another. Cystic Hygroma of the Mediastinum. *Thorax*, 1950, **5,** 105.

Höhn, E. O. and Robson, J. M. The Response of the Rabbit's Endometrium to Uterine Implants of Progesterone and other Steroids. *J. Physiol*, 1950, **111,** 174.

Hunt, J. N. and another. The Inorganic Components of Gastric Secretion. *J. Physiol.* 1950, **111,** 138.

Jacoby, N. M. The Diagnosis and Treatment of Infantile Pyloric Stenosis. *Med. Pr.*, 1950, **223,** 507.

Lubran, M. Determination of Hetrazan in Biological Fluids. *Brit. J. Pharmacol.*, 1950, **5,** 210.

Ogilvie, Sir Heneage. On Growing Up. (Wood Jones Memorial Lecture). *Manchester Univ. Med. Sch. Gaz.*, 1950, **29,** 51.

Ogilvie, Sir Heneage. The Medical Hazards of Sailing. *Practitioner*, 1950, **164,** 535.

Martin, J. K. Retrolental Fibroplasia Occurring in Twins. *Proc. Roy. Soc. Med.*, 1950, **43,** 235.

Palmer, K. W. N. Active Splinting for Radial Nerve Palsy. *Lancet*, 1950, i, 906.

Pearson, R. S. Bruce. Refresher Courses for General Practitioners : The Management of Asthma. *Brit. Med. J.*, 1950, i, 1311.

Pearson, R. S. Bruce. Antihistamine Drugs. *Post-Grad. Med. J.*, 1950, **26,** 325.

Philip, W. M. Brachial Neuralgia. *Brit. Med. J.*, 1950, i, 986.

Pilbeam, J. F. Dental Auxiliary Workers. *Brit. Dent. J.*, 1950, **88,** 123.

Robson, J. M. The Use and Abuse of Topical Ocular Therapy. *Trans. Ophthalmol. Soc.*, 1948, **68,** 329.

Rushton, Martin A. A Tooth Germ from a Case of Scurvy. *Brit. Dent. J.*, 1950, **88,** 169.

Rushton, Martin A. A Case of Hereditary Enamel Hypoplasia. *Brit. Dent. J.*, 1950, **88,** 300.

Scott, L. G. (for P. R. Evans). Idiopathic Pulmonary Hæmosiderosis. *Proc. Roy. Soc. Med.*, 1950, **43,** 240.

Stamm, T. T. The Treatment of Flat Foot. *Med. Pr.*, 1950, **223,** 555.

Thompson, R. H. S. and Ord, M. G. Nature of Placental Chlorinesterase. *Nature* 1950, **165,** 927.

Tillman, W. G. Herpes Gestationis with Hydatidiform Mole and Chorion Epithelioma. *Brit. Med. J.*, 1950, i, 1471.

Vergano, B. L'istruzione medica in Gran Bretagna. *Minerva Medici*, 1950, vol. 1, No. 2 (13 Gennaio).

Waterfield, R. L. and Norman, T. H. A New Warm Stage for the Microscope. *Lancet* 1950, i, 448.

Wheatley, David. Chilblains and Prothrombin Levels. *Lancet*, 1950, i, 712.

Wheatley, David. Rheumatoid Arthritis Treated with Anterior Pituitary Growth Hormone. *Brit. Med. J.*, 1950, i, 1472.

Wheatley, P. Ross. Accident Surgery. *J. Roy. Army Med. Corps.*, 1950, **94,** 5, 170.

ORDER OF ST. JOHN OF JERUSALEM

Squadron Leader F. S. Krusin M.R.C.S., has been appointed Associate Officer.

CHANGES OF ADDRESS

Capt. Howells, N.R., 18th Field Ambulance, c/o British Army P.O. No. 1.

D. M. Carnegie, M.B., B.S., D.A., 11a, St. John's Park, Blackheath, S.E. 3. Tel. Greenwich 4523.

J. D. R. Shaw, B.D.S., 50, First Avenue, Hove, Sussex.

BIRTHS

HUNTLEY,—On June 18th, 1950, at Guy's Hospital to Phyl (née Griffiths) and Dr. Martin Huntley, 78 Lampton Road, Hounslow—a son.

EVANS. — On July 3rd, 1950, at 387, Queens Road, New Cross, to Alexa (née Mitchell) wife of Dr. Carlton John Evans —a daughter, Alexa.

PRICE.—On July 5th, 1950, at Nuffield House to Anne, wife of Dr. Michael Price—a son.

THOMAS.—On June 20th, 1950, at Nuffield House, to Jane (née McQueen) wife of Richard Seymour Thomas, M.R.C.S., L.R.C.P., of 207 Hither Green Lane, S.E.13 —a son, David Richard Moore.

MARRIAGES

BRIDGE—MICHELSON.—On July 8th, 1950 at St. Michael's Church, Chester Square, Arthur J. Bridge, L.D.S.Eng., to Margaret Michelson.

HOWELLS—JONES.—On June 28th, 1950, at St. Andrews Church, Kowloon, Hong Kong, Nat Richard Howells, B.D.S., to Rita Jones.

DEATH

HANCOCK.—On June 29th, 1950 Walter Charles Hancock, Senior Asst. Anatomy Dept. Medical School (1890-1926) 217, Croydon Road. Beckenham.

Eds. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY, AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1618 *29th July, 1950* *Ninepence*

PASSIM

"THERAPEUTICS treated in the traditional manner, as applied pharmacology, is a legacy of an age the therapeutic poverty of which is shown by long lists of mixtures whose only virtue in many instances is their harmlessness to the recipient." Such was the opinion recently expressed by Professor Pickering when he appealed for therapeutics to be regarded essentially as an experimental science.

Yet what is the poor, benighted practitioner to do under the circumstances in which he finds himself? According to the era in which he spent his time as a medical student he will have been reared either in the mystical polypharmacy that lingered from centuries of mediæval magic and therapeutic impotence or in the admittedly more exacting but nevertheless largely irrevelant animal demonstrations and references of the erudite pharmacological mentors. On qualification then, however well equipped he may be in the diagnosis and even management of his patients, he feels himself utterly helpless when it comes to the prescription of so many specific treatments—and this is an age when astounding and well-nigh revolutionary discoveries are being made in this field of knowledge almost every year. But one source of information remains open to him. Indeed, it is more than a mere source; it is a veritable cornucopia, bewildering in its profusion of therapeutic wonder. We refer, of course, to that amazing welter of leaflets, broadsheets, hand-outs, samples, brochures and invitations that pour through the letter box of every medical man from the very day that his name is inscribed upon the official register.

Is it any wonder that the average doctor amidst this mælstrom finds himself virtually incapable of adopting anything like a scientifically detached or critical attitude of mind? With the strongest will in the world he cannot be other than swayed, if not by the subtle and persuasive overtures of the drug manufacturers themselves, then at any rate by those that reach him through the medium of his patients.

Much loose talk and writing is nowadays devoted to "refresher courses." To keep the family doctor acquainted with the latest advances in surgery, radiology and pathological investigations, for example, is admirable enough. Much more important, though, are measures designed to keep him *au fait* with the rationale, indications and effectiveness of the ever-widening range of drugs that the physician has put at his disposal, be they natural or synthetic; antibiotic, endocrinological, sedative, nutritional or anti-histaminical.

To begin with, we suggest that this, above all, is one part of the student's course that demands immediate and greater emphasis. Secondly, the recently-qualified man is in particular need of wisdom and guidance; methods and habits in prescribing instituted at this stage will avail so much for the rest of his professional career. Inadequacies in his diagnostic skill he will inevitably overcome, if only by the sheer virtue of further experience. But for the first time in his life he will be faced with the responsibility of affecting a cure. To this end he will need a better therapeutic armament than the rows of bottles that he may behold upon the ward cupboard shelves (a number of them displaying an air of effete antiquity), the highlights of the advertisers' efforts or, with due respect, the invariably well-intentioned suggestions made by the ward-sister when the houseman is otherwise so obviously at a loss. Finally it goes almost without saying that the established practitioner should be given reliable facilities to keep him abreast of contemporary advances.

Everyone is aware of the therapeutic darkness that prevails; "let there be light."

The Natural History of Influenza

By Professor Perrin H. Long, M.D., F.R.C.P.
(Professor of Preventive Medicine at Johns Hopkins University)

A Clinical Lecture delivered at Guy's Hospital Medical School on 18th May, 1950.

LADIES AND GENTLEMEN,—Today I want to continue our discussions on the natural history of disease by taking up the natural history of influenza. I think one of the best short descriptions of influenza that has ever been written is the one given by Dr. James Wilson, who was a notable physician in Philadelphia late in the nineteenth century. He said :—

" Influenza is a continued fever, usually of mild intensity, occurring in widely extended epidemics and due to a specific cause. It is essentially characterised by an early catarrh of the mucous membrane of the respiratory tract, and, in many cases, of the digestive tract, by quickly oncoming debility and by serious nervous symptoms. There is a strong tendency to inflammatory complications, especially of the lungs. Uncomplicated cases are rarely fatal except in feeble and aged persons. An attack does not confer immunity from the disease in future epidemics."

Influenza has been called by a great number of names such as epidemic catarrhal fever, Polish, Spanish, Chinese and Russian influenza, depending upon which country you want to blame for an epidemic ! In some parts of the world influenza has been regarded as something due to the " influence " of the stars.

Historical.

Influenza is a disease of real antiquity. A clear enough description of epidemics identifying influenza may be found as far back as the sixteenth century. An epidemic in 1557 was the first to be described accurately enough for identification purposes. This began in England in September of that year and rapidly spread over Europe. In Paris the judges, the lawyers, the defendants and plaintiffs were all down with it and the courts of law had to be closed. There were high case-fatality rates in certain areas. In 1580 another epidemic occurred which was thought to have originated in the Middle East and was very severe in certain places. In 1782 there was another severe epidemic, widespread, and with features of special interest. It was probably an epidemic of what we now know as type A influenza. It started in the spring. It showed a high attack rate and a fairly high case mortality rate. In Vienna it gained the name of "Blitz-Katarrh," it struck the individual like lightning.

I may perhaps relate to you an episode in American history. In 1782, the year of that epidemic, the situation of the North American "Rebels," as you would call them, was very precarious. It became precarious because the Royal Navy had a very strict blocade on the coast of France and the "rebels" were having great difficulty in getting guns, money, goods and munitions of all kinds out of France. In 1782, if you have read some of Washington's accounts and those of other " rebel " generals, you will find that they took a very dim view as to whether they were going successfully to terminate their revolutionary war. Then something happened. The influenza epidemic spread in the British fleet which was blockading the French coast in retaliation for France's support of the North American "rebels". The entire fleet had to return to its bases in England, and the minute the British fleet sailed off, the French vessels went out with large numbers of French troops and munitions for America. That revived the hopes of the "rebels" so that eventually it was thought wise in England to make peace with them. It is an interesting example of how an epidemic of disease may have a distinct bearing on political and military ventures.

The next pandemic was in 1837 and originated in the Middle East. In London almost the whole population was attacked, and again the mortality rate was high. Then there was an epidemic in 1848, not a true pandemic, but nevertheless widely spread. The mortality in England was 460 per million. There were no real epidemics in England in the late 'seventies and early 'eighties and the mortality rates from influenza were only about 3 or 5 per million. In 1889 a pandemic made its appearance in Central Siberia, the North-West Territories of Canada, and Greenland. In the middle of October of that year the disease was in Russia. This epidemic was characterised by the rapidity with which it struck. In St. Petersburg, out of one office staff numbering 260, 220 were taken ill on the night of November 15th, 1889. One of our great American physicians W. S. Thayer, was in Berlin at that time. He got up in the morning feeling perfectly well, ate his breakfast, went back into his room in the *pension*, put on his hat and coat, started downstairs, and by the time he got to the ground floor he was so weak and so " done in " that his landlady had practically to carry him back upstairs. He had been hit by the influenza. That shows the rapidity with which influenza struck in the 1889 epidemic.

In England the death-rate in 1890 was 574 per million. In 1891 there was the first recurrent wave which often happens after an epidemic and the mortality was 583 per million, and in 1893 there was again a second mild recurrence. Again, in 1900, there was a marked recurrent wave which was attributed to the 1889-90 epidemic and the death-rate was 500 per million. Then the mortality dropped so that until 1917-18 the deaths from influenza numbered only 4, 6 or 8 per million per year.

The 1918-19 Pandemic.

In the winter of 1917-18, at such widely separated places as in Georgia (U.S.A.) and British hospitals and clearing stations in Flanders, a disease accompanied by purulent bronchitis was noticed in localised outbreaks. Later, in the spring of 1918, a mild form of influenza which was called " Spanish flu " swept Europe. In our own ambulance section, out of forty men, we had thirty-six knocked out within a week. Our Commander was worried because 70 per cent of the Division was hit by this " Spanish flu." He was scared because he thought that the Germans, while we were paralysed by this outbreak, might attack. Ten years later, talking to a German doctor at Freiburg, I learned that at about the same time just across the line the German Divisional Commander was worried about the possibility that the French might break through because influenza was rampant in his own Divisional area.

It is estimated that in the 1918-19 outbreak 700 million people were taken ill and 20 million died. In the United States 500,000 people died of influenza. The British mortality was 3,129 deaths per million. I should like to read to you a passage from a book by Geddes Smith which describes very graphically and in detail the influenza situation in the United States during that pandemic :

" As these sinister changes in the behaviour of the disease began to be apparent, the impulse to brush it aside as merely ' grippe ' gave way to bewilderment and anxiety. In the United States, New England first felt the pressure of a major emergency. Three thousand cases developed in eight days at an army training camp. In the second week of October Boston was seriously affected. Public meetings were banned ; the saloons were ordered and the churches requested to close their doors (Mother Eddy's followers dissenting). Many doctors and nurses had gone to war ; those left at home were overwhelmed. Massachusetts called on the Federal Government for help. Emergency hospitals were set up in schools, churches, town halls, and (not least effectively) in the open air. A hospital train was rushed from Maryland to Massachusetts, and kept in service there till it was more urgently needed at home. So many operators were sick that use of the telephone was discouraged".

" In the third week of October New York was in the thick of the epidemic, in the next week Washington and Chicago, in the next New Orleans and Los

Angeles, in the next Seattle and San Francisco. Everywhere health authorities fired broadsides of advice at the public, then buckled down to the task of getting the sick cared for and the dead buried. The United States Public Health Service issued a terse bulletin summing up what little was known about the disease, asked and received a million dollars from Congress, recruited more than a thousand physicians for emergency duty, busied itself with current reporting, sent its own men to mobilize local resources. Volunteers visited the sick, cooked for the hungry, carried food to demoralized homes. In Detroit, schools were closed so that the teachers might canvass their districts and report unattended cases. In Philadelphia, when trained workers were lacking, the local Council of National Defense advertised for 'any person with two hands and a willingness to help.' Harrowing situations were found—men and women dying without help; bedridden mothers and newborn babies sharing rooms with unburied corpses. In Philadelphia two hundred bodies were crowded into a morgue built for thiry-six; coffins gave out, and a street railway repair shop was turned into a coffin factory. In New York the mayor ordered street cleaners to the cemeteries to help dig graves. Even the elaborate organization for war had to yield precedence: fuel administrators relaxed their rules, and the movement of conscripts to the training camps was halted."

That is an adequate description of how influenza struck in the United States. Since that time, while we have had a number of recurrent waves of influenza, we have seen nothing which approximated to the pandemics of 1918-19.

Influenza in Animals.

Are there any related diseases in animals which are like influenza in the human being? Very curiously, in 1918-19, in Iowa, there was noticed an illness among hogs which appeared to be new and was termed "swine influenza." It behaved in the hog very much as epidemic influenza behaved in human beings. It was not until more than fifteen years later that the ætiology of the disease was elicited at the Rockefeller Institute when it was shown that it was due to a type of influenza virus and that it required for the full fruition of the disease a concomitant influenza organism. The great question in the minds of many was whether hog influenza represented a transfer to human and then a change in the virus.

There is another disease of fowls known as the Newcastle disease, which closely simulates influenza, and this is a disease which occurs occasionally by accident in laboratory workers. They get conjunctivitis and can under certain conditions—I have seen one or two cases—get in addition clinical symptoms closely resembling influenza. I believe that if I had forty volunteers in a row and transferred the Newcastle disease virus to them serially I might end up with influenza.

Bacteriology.

From the point of view of pathological considerations, when the 1889-90 epidemic came along, bacteriology was coming up as a science and a great deal of work was done in Europe and especially in Germany on the ætiology of this diease. From practically every case which he studied Dr. Pfeiffer in Germany obtained a gram-negative bacillus which he came to believe was the ætiological agent of influenza. This he called the influenza bacillus and it is often called the Pfeiffer bacillus. It did produce when injected into the lungs of animals a purulent bronchitis. From 1889 onwards there did not seem to be any question about the ætiology of influenza; it was due to Pfeiffer's bacillus.

In 1909-10, at Chicago, a worker isolated a green streptococcus which he transferred to animals and thought he was producing a disease comparable to influenza in human beings.

Interestingly enough, during the pandemic of 1918-19, there were a number of reports of the isolation of green streptococci from patients and it was thought that influenza could be induced in monkeys by inoculating with cultures

of this streptococcus. It was held by many people that this might be a viral infection because the study of viral infections was just beginning to become important. In Boston, on Goat's Island, there was carried out under Government auspices an extensive experiment using naso-pharyngeal washings transferred from people ill with influenza to human volunteers. The experiment was completely negative; not a single case of influenza was obtained. But when these people went back and mixed with the normal population of Boston often they immediately went down with influenza.

Bacteria-Free Filtrates.

Far away from Boston, in Japan, Yamanuchi reported in 1919 or early in 1920, in a short paragraph, I think in the *British Medical Journal*, that by using a Berkefeld filtrate of naso-pharyngeal washings from patients suffering from influenza in Japan he had been able, in every test, to transfer influenza to human volunteers. Nothing was heard from him again, but he did make that report and one must suspect that he may have been in the right in view of what we now know about these matters.

All over the world at that time and expecially in the Rockefeller Institute an enormous amount of work on this subject was going on. In 1921 it was reported that from filtrate nasopharyngeal washings of patients suffering from influenza Olitsky and Gates had been able to isolate a small anærobic bacillus which in rabbits apparently produced a disease similar to the influenza. It was called *B. pneumosintes*, meaning "lung destroyer," because one of the points noted was the destruction which occurred in the lungs. Further investigation showed that this organism was to be found in practically normal individuals, but the work did reveal the large filter-passing flora which exists in the nasopharynx.

Then in 1933 we had an outbreak of influenza in Baltimore and we believed—and I think we were correct though we could not do anything more about it—that we were able to transfer to chimpanzees clinical influenza by means of washings from patients which were first frozen and then stored for six months. At that time the chimpanzees were very scarce, and we quickly ran through our sixteen animals, which were all we had, and then we could do no more experiments because all these chimpanzees became immune.

The most important advances in ætiology were those by Smith, Andrewes and Laidlaw in 1933 when they transferred the virus to the ferret and found that it could be done with comparative ease. Thus, for the first time, a small animal was available in which to study influenza.

A year later Andrewes in this country and Francis in our country found that if one took a filtrate nasal washing and dropped it into the nose of a mouse after anæsthesia, that influenza was produced in the mouse. Then Dr. Smith in 1935 showed that the virus could be grown in embryonated egg, and the final interesting advance was that by Hirst in 1941, when he showed that it was possible to test for virus deeply by just ascertaining whether the material would agglutinate avian or certain mammalian red blood cells.

As a result of these studies certain groups of influenza virus with a number of different sub-strains within each group were classified. Groups A and B are serologically and immunologically different, but as I pointed out, there are numerous sub-strains. One of the interesting things about the influenza virus is that it has a tendency to mutate and change its character. This has been studied by Professor Burnet of Melbourne who is now in this country, one of the most profound thinkers in the field of infectious diseases in the world today. Working on this discontinuous mutation he found that if one used fowl red blood cells and guinea-pig red blood cells and took some of the material and did agglutinations one got a high fowl-guinea-pig ratio, but after transfer to a second embryonated egg the F/G ratio from then onwards becomes 1 and remains 1 in all successive passages. Strains giving a high ratio are set up in the O phase, the original phase in which it is believed they exist in human beings, while those strains giving unity are in the D or derivative phase. The O/D change is an example of a discontinuous mutation which is not due to the environment but to a change in the virus.

I should like to discuss with you next the difference between type A and type B strains of virus.

Characteristics of the Ætiological Agent:

A. Differences between type A and type B strains.

Property	*Type A*	*Type B*
Antigenicity	Qualitively different from Type B.	Qualitively different from Type A.
Periodicity	Epidemics at 2-3 year intervals.	Epidemics at 4-6 year intervals.
Immunity	Shorter duration than Type B.	Longer duration than Type A.
Pathogenicity	Consistently greater for laboratory animals.	Consistently milder for laboratory animals.
Isolation	More readily isolated in ferrets and developing chick embryo.	Difficult and sometimes impossible to isolate in the ferret; amniotic cavity susceptible.
Growth Rate	One-step growth curve of 5-6 hours.	One-step growth curve of 9-10 hours.
Receptor Destruction	Less complete than with Type B.	More complete than Type A.
Normal Serum Inhibition of HA	Less readily inhibited.	Readily inhibited to high titre.
O phase	Often present on isolation.	Never present.
H phase	Rarely if ever present.	Usually develops.
Size	Smaller than Type B.	Larger than Type A.
Incubation Temperature	35°-37° in chick embryo.	Best at 35°.
Range of HA	Positive for limited species.	Positive for many species.
HA Stability	More readily inactivated by heat and U.V.L.	More resistant to heat and U.V.L.
pH Stability	Most stable at 6.5-7.	Most stable at 7.9 or above.
Stability at—72°	Stable on storage.	Rapid loss of titre on storage.

B. Differences between the O and D phases. Type A virus.

Characteristic	*O Phase*	*D Phase*
Multiplication Rate	Slower.	Faster.
Amniotic Cavity	Multiplies when inoculated in high dilution.	Multiplies in any infective dilution.
Allantoic Cavity	None.	Multiplies.
Amniotic Fluid	Produces excess fluid.	Causes reduction.
Enzymatic Activity	Higher in receptor gradient series.	Lower in receptor gradient series.
HA		
Fowl/Guinea Pig	Less than 0.5.	Greater than 0.5.
Adsorption Fowl Erythrocytes	Not adsorbed.	Adsorbed.
0.1% $CaCl_2$	Decreases F/G.	Unaffected.
1% K. Oxalate, Na Citrate, NaF, Storage, Heating, etc.	Increases F/G.	Unaffected.
Inhibition by Tears	Resistant.	Susceptible.
Pathogenicity Ferrets	High.	Slight.
Pathogenicity G.P.	Infects more readily.	Infects less readily.

Behaviour of the Virus.

How does this influenza virus get into us and how does it infect us ? Here I think the brilliant work of Professor Burnet and his colleagues in Australia warrants very careful consideration. It was noticed by Hirst that a suspension of influenza virus would agglutinate certain types of fowl and mammalian red blood cells, and a very interesting point was that agglutination ceased after about an hour or so and the virus left the red cells. If one tried to re-agglutinate those red cells with fresh virus one got no agglutination.

Professor Burnet thought that this phenomenon closely resembled the reaction of an enzyme with its substrate. Therefore he and his collaborators went to work to study the substrate on the surface of the red blood cells, and they showed that the substrate on which the virus acted to agglutinate the red blood cells was a mucin. Burnet demonstrated that the cells in the respiratory tract which are susceptible to attack possess a mucin with which the virus reacts, thus permitting it to enter the cells after which, as we now know, the virus becomes an activator, perverting the enzyme systems within the cell in such a way that those systems can convert the nucleo-protein complexes within the cell to complexes which make the virus. The virus is a non-living substance but it has the power to pervert the activity of the metabolic process. After a certain time the cell in which this perversion has taken place ruptures and frees more virus particles.

That is a very important point to consider because it shows pretty well that that is the mechanism by which influenza invades the cells of the respiratory tract. At this point it is well to consider a little about the characteristics of these various strains from the experimental point of view. When one is studying influenza during the outbreaks one runs into clinicians who will say of a case, "That is not 'flu' as I saw it in 1918." I have set out on the blackboard the differing human pathogenicity of influenza strains as worked out by Henle in Philadelphia :

Strains	*Time of onset*	*Changes in white blood cell count*	*Antibody correlation*
PRSA	24 hours	Not marked	None
LEEB	"	"	"
F99A	30-48 hours	Marked leucopenia	Inverse
F12A	——	Not marked	——

The interesting thing is that in three of these strains there is no marked change in the white blood cell count, but in one of them there was found in every patient a marked leucopenia. One might say, " I am not dealing with influenza because there are three strains which have been carefully studied in the case of human beings and the change in the white blood cell count is not marked," yet undoubtedly no one should argue that just beeause he has not got a leucopenia he is not dealing with influenza.

Immunity.

What is the story about immunity in relation to influenza ? Experimentally in ferrets and mice it has been shown that homologous immunity to a given strain can be established for six to twelve months. In human beings however, after an attack of either A or B influenza immunity generally does not persist in any significant degree for more than six months, and that explains why Dr. Wilson in his definition of influenza said that no immunity was conferred by one attack. That was noticed in recurring waves in 1919-20. The duration of immunity in influenza is very short. Another thing that is very important is that one may have a definite titre of antibody and still get influenza.

The question obviously is, how does the influenza virus survive between epidemics ? We know that in isolated communities it dies out. There are not many isolated communities in the world nowadays, what with air communi-

cations, but formerly Spitzbergen was an isolated community for nine months of the year and all colds and influenza would die out. Then every time, after the winter was over, when a ship came in with stores, common colds and influenza would be epidemic within 48 hours and they would last until the ice came back and Spitzbergen was again isolated.

Another very interesting example was furnished in Tristan da Cunha which was unvisited from the outbreak of the First World War until sometime after that war was over. On that island there are about 500 people of many different races. In the early 'twenties the South African Dental Society suddenly realised that for several years this island had not been visited and wondered what was happening to the people's teeth. They organised a Royal Dental Commission in South Africa and went out to attend to the teeth of the islanders on Tristan da Cunha. On board the cruiser there were two mild cases of influenza. These patients did not go ashore, but the others did, and within a short time on that island there was an outbreak of influenza with 100 per cent. morbidity and almost 50 per cent. mortality.

We do not know very much how the A type of virus survives between epidemics. It may be the virus concerned in very mild cases which may or may not be quite "flu," We have no idea why at intervals we have a brisk epidemic of type A influenza —the very explosive type. We have found out something very interesting about the B strain of virus, namely, that it can survive in the lungs of people. The B virus has been isolated from the lungs of people dying of diseases other than influenza—people who had no history of influenza and were not suffering from it when the virus was isolated. From this and other proofs it appears that the B virus can survive in the lungs of people who have no signs of the disease.

Control of Infection.

What can we do about influenza as regards clinical immunity and control, for part of the natural history concerns the barriers we may erect against it? In any epidemic the majority of individuals in ordinary communities do not develop the clinical disease. In London in the 1918 epidemic only about 20 per cent. of the people went sick. This means that when an epidemic is raging through the population most people nevertheless are immune. There is a good correlation between the fact that one has no or little antibody titre and the chance of getting the disease. The immunity mechanisms are quite complex in their nature. They represent a summation of past infections, clinical and sub-clinical. On the other hand, children resemble ferrets. When a child is infected, instead of getting a reaction of summation, he gets a very sharp rise in the type and specific antibody of the strain with which he was infected and in that respect he resembles the parent. The serum of a child will only react with the specific strain, whereas with most adults who have any antibody it will react in some degree with almost all the strains. We believe that protection takes place if enough antibody is present so that it can neutralize the virus before it enters the cell and starts to multiply.

Vaccination against influenza has been extensively tried in our country, and it is believed that vaccination with the proper antigen will produce immunity for from two to twelve months against homologous strains of the virus. But in practice vaccinations have not been too successful. We now believe in our country that possibly only people who may be at special risk should be vaccinated at the beginning of an epidemic. Old people or possibly some very young people might be vaccinated, but we do not recommend widespread voluntary vaccination for soldiers and sailors or medical students because we have found that it has not helped too much in preventing influenza.

Such is the natural history of influenza—a disease which, I am sure, we shall see recurring in our lifetime in pandemic form. But in my belief, in advanced countries such as yours and mine, we shall not see again the enormous mortality which we saw in 1918-19. This is because the people attacked by influenza died with pneumonia, and in view of the sulfonamides and antibiotics now available the mortality in the next pandemic may be expected to be rather low.

Trouville

FOUR of us decided upon a holiday afloat. The vessel chosen was "Shanakiel," an old 7-metre yacht, the sail area of which had been reduced the previous winter. Originally the idea was to start by racing in the Solent on the Saturday afternoon and then to set sail for France the same night. With good luck we should have reached Trouville by Sunday, spent three days there and got back in reasonable time for the Channel race to start on the following Friday at 2.30 p.m.

This somewhat ambitious programme had to be curtailed, fortunately as it turned out, for to have gone on as we originally intended would have made us physical wrecks by the end of the week.

The sailing complement comprised Bill, as skipper and part-owner and John as navigator, together with Neil and myself—also part-owner, both of us medical students.

After an uneventful train journey down we nearly lost Bill and Neil on the Gosport Ferry, but they contrived to turn up in time to load their gear into a taxi, grossly overburdened by the four of us, in addition to a couple of sailing friends we had met on the train, one sail, one wireless-set, a mass of clothes and an incredible quantity of food.

Reaching the Hardway where the boat was moored we decided upon two trips in the dinghy. This, however, leaked like a basket. In the first place I set off for "Shanakiel" with all the gear. Rowing out to the moorings allowed opportunity for contemplation of my first crossing of the Channel in a sailing boat. In all honesty I was not a little worried for, by no stretch of the imagination could "Shanakiel" be classed as a comfortable boat. However, Bill and John were both confident that she would never be actually dangerous, so, with the prospect of ample quantities of French wine at the end of the voyage, I decided to make the best of it.

We were all aboard by 8 o'clock on the Friday evening. Two hours were occupied in various odd jobs before we slipped our moorings and set sail at once for Trouville, the idea of racing beforehand having already been abandoned.

The dinghy was stowed upside-down on the deck. To have attempted to tow her astern would have meant she would have sunk and, in any case, on deck she did at least afford some protection from the spray which whipped across the bows.

Bill took her out of the harbour and through the Spithead forts. By midnight the Nab Tower was abeam and Neil and I turned in, leaving the other two on deck for the first three-hour watch. The boat at this stage was jumping about on the choppy sea and I began to feel faintly sick—in spite of Tab. Dramamine i, taken two hours previously.

We nevertheless enjoyed three hours sound sleep before being very rudely awakened at 3 a.m. to stand our watch. On deck again we found that the wind had dropped slightly, but the boat was still making about five knots through a fairly uncomfortable sea, with a considerable amount of rolling.

They set us a course of south by east and then, with instructions to call them if the westerly wind freshened enough to change from our big Genoa to a small storm jib, the other two turned in.

Neil, I was soon relieved to find, soon learned to steer a compass course, so I swathed him in a blanket and went for'ard myself. Our watch passed peacefully enough and with great delight we hauled the other two out at 6 a.m. For our part Neil and I were in our bunks and asleep again almost immediately. By 9 o'clock I awoke so hungry that I offered to cook breakfast for all. At this suggestion the navigator, to my great surprise, emitted a hollow groan, murmured something about never eating much at sea anyway and declared that all he wanted was a nice little sleep. Neil in turn demurred, professing a slight anorexia and only in the face of firm persuasion gave up the idea of water biscuits for the bacon and eggs that I offered. Bill, at any rate had no such qualms. He devoured his share whilst enveloped in his sleeping bag and even fell asleep with his knife still clutched in his hand.

With a great sense of satisfaction I went on deck to eat my breakfast and never have I enjoyed one more. The wind remained in the same quarter, the sky was overcast with low cloud and the glass was steady. We had little, we thought, to fear from the weather. By mid-day the cloud lifted and the sun broke through. Visibility was such that we expected to see the French coast at any minute.

During the afternoon, however, the wind gradually dropped. It was not until about 4 o'clock that we suddenly saw the coast-line and then there seemed so much of it that it was difficult to understand why we had not espied it before. According to our estimates it was still about twenty miles off and, just as we were congratulating ourselves on what we considered was the correct land-fall the navigator brought despondency to all of the ship's company by saying something about a light-ship ten miles off-shore and demanding to know why we had not sighted it. We retaliated by saying that it must be his fault ; it could be no-one else's. If his calculations had been correct then we would not be where he had taken us—in the direction of Spain ! He naturally objected and blamed the helmsman and then, just as the debate was becoming a little acrimonious Bill saw the light-ship and our differences were settled. Half-an-hour later it was plain even to my myopic eyes. For the next three hours we did no more than drift towards the light-ship and by 8 p.m. we were still about half a mile off. As the only way to get into the harbour was through the lock gates at high tide we by then realised that we had "had it" until 6 a.m. next day. So we dropped anchor with 20 fathoms of cable, left a riding light to let the steamers know we were there and all turned in.

By 3 a.m. John woke up again. A fairly heavy wind, he found, had got up from the west. The opportunity was too good to miss. We weighed anchor—quite an effort on 20 fathoms—and soon left the light-ship astern.

We had only a small scale chart but Bill assured us he knew the way in—and we were in his hands. By this time we saw the lock gates we were no more than half a mile from them. With a fair wind into the harbour Bill hung on to his mainsail until we were all beseeching him to have it down and go in slowly Only at the last moment did he agree and we were in fact just stowing it as we went through the gates into the yacht basin. We tied up alongside the wall, stowed the jib, put the cover on the mainsail and got the dinghy over the side.

As it was only 7 o'clock in the morning, even then, we had to contain ourselves until what would be a civilised hour—France not excepted—for drinking. And once ashore in France, what did we do ? Well, drinking, eating, eating, drinking, getting things for the boat, and buying others to bring home, in about that order of importance.

In fact, eating ashore was rather expensive, so we usually bought cooked meat for lunch afloat and went ashore to the flesh-pots in the evenings. Competition to serve in the victualling party was fierce, for in so doing one enjoyed the odd Dubonnet in the course of finding the cheapest source of meat—and, incidentally, discovering the cheapest Dubonnet.

Our Bacchanalian stay was all too short, for we were planning to be back by Friday. On the Wednesday morning, therefore, the local ferry-man towed us out of harbour and, to his cries of "bon voyage" and "a bientôt" we slipped our tow and were on our way.

The passage home was a slow one, for a flat calm prevailed for most of the way, excitement being added by six hours fog on the Thursday. We were all certain that this would completely confound the navigator, but not so. By the aid of the simple chart, a pencil, and the back of an old envelope he set us a course so that by 9 o'clock on Thursday night we were able to pick up the Nab Tower and St. Catherine's light ahead, just where he said they would be. Indeed we were in Portsmouth harbour by midnight.

Sleep was welcome and sound that night and next morning, so weary was everyone in the crew, that the weekend was spent quietly in the Solent instead of vigorously racing in the Channel as we had in the first place planned.

D.B.

Appointment

Heartiest congratulations to Dr. K. S. Maclean upon his appointment as Fifth Assistant Physician to the Hospital as from 1st July, 1950. As, successively, student, house officer, registrar and assistant director to the department of medicine, Dr. Maclean has established himself at Guy's not only as a practising physician and teacher but also as a very popular figure. His appointment will meet with widespread approval.

Obituary

WALTER CHARLES HANCOCK

All old Guy's men who dissected at any time in the period 1890-1926 will have learned with feelings of deep regret of the death on June 29th of "Doc" Hancock, that Grand Old Man of Guy's who was the presiding genius of the Anatomy Department during those thirty-six years.

He occupied a unique position, for he was not only a loyal and devoted servant of the Medical School, but he was at one and the same time the conscientious and efficient departmental attendant, and the advisor and counsellor and the sympathetic and helpful friend of every student who passed through the Dissecting Room in his time. When, following the 1914-18 World War, a number of war veterans formed the Guy's Hospital Innominate Club, one of their first steps was to elect him a member. Their weekend excursions were always headed by "Doc" reclining comfortably in a sidecar and woe betide any member who had the audacity or lack of propriety to pass him on the road.

Those of more recent generations who are interested will find an appreciation of him in the *Gazette* for 1927. There they will discover what a tremendous influence for good he exercised throughout his active life. As he grew older—he was in his 89th year when he died—he still retained a keen interest in the welfare of the Hospital and especially in the welfare of the Rugby Football Club. He was present at the Centenary match at H.O.P. in the latter part of the war and only two years ago, to my intense surprise and unfeigned pleasure, he attended my farewell lecture in the Anatomy Theatre.

"Doc" Hancock was always young at heart, always stoutly independent in his outlook, and sincere and honest in everything he said or did, and it was good to know that his end was painless and peaceful. The closing line of Alington's tribute to Hensley Henson are equally applicable to "Doc" Hancock.

"Sound, sound ye trumpets on the farther shore,
Valiant for truth crosses the stream once more."

T.B.J.

So "Doc" has left for home. All of us, who belonged to the original Innominate Society, must have read this news with the feeling that we have said au revoir to a very dear friend. "Doc" was our President, our one and only President, for no one could ever have taken his place. His keen sense of humour, his loyalty to Guy's, his sound judgment of his fellows, his genuine interest in us all, his pride in the Somerset XI even in its unlucky seasons, his constant kindness will always remain in our memories.

He came with us on practically every one of our "excursions." The days on which he could not be with us were never quite the same. Life at Guy's was a happy one. But for us "Doc" made it specially happy.

Thank you, "Doc." We loved you a lot and we shall have a lot to talk over when we re-join you.

H.J.S.

Reviews

Studies on Tumour Formation. By G. W. de P. NICHOLSON. Butterworth. *Price* 63*s.*

In this volume are gathered together those essays which appeared under this title in the Guy's Hospital Reports between 1922 and 1938. The volume is beautifully produced and will be treasured by all Guy's men who, over the years, were delighted and instructed by these essays from the pen of one of this Hospital's most distinguished sons.

It is no exaggeration to claim that this work does for oncology and teratology what Hilton's "Rest and Pain" did for surgery. In many respects the two books are similar. Both are authoritative, both are the result of personal observation and both have a literary flavour which will assure for the later work, as for the earlier, a firm place amongst the classics of medical literature. Perhaps it is the hallmark of a classic dealing with a special sphere, that it can be read by the layman with a delight equal to that enjoyed by the expert. It is so with Ernest Newman on music, with Eddington on the nature of the physical universe, and so it is with Nicholson's studies in tumour formation.

Much of the burden of the thesis of this work is to emphasize the importance of a study of biological principals before interpreting the vagaries of tissue behaviour. Nicholson, like Hilton, may be said to have squeezed the last ounce of information out of the limited material which he studied and discussed. The method is the fascinating one of the intensive study of the few as opposed to the marshalling of a series for statistical analysis. It is a method which lends itself to literary discourse and scientific, not to say philosophic, discernment. Nothing is stated which cannot be demonstrated, no evidence is adduced unless it be unequivocal, and it is with loving care that the specimens are, as it were, brought out for display, to illustrate his point for our delight and erudition.

Much of the study is concerned with malformation—malformation of tissue in bulk, differentiation, position and blending. Examples are taken from many organs of the body, from the breast, thyroid, liver, kidney, and ovaries, particularly the kidney and ovaries; the former because the author as one of his set purposes disposes for all time of Cohnheim's theories of "cell rests" and the hypernephroma is the captain of the enemy host; and the ovaries because Nicholson's greatest interest centred round the teratomata.

The volume is embellished with a forword by Professor Willis, and a delightful introduction by Nicholson's devoted disciple and pupil, Dr. de Navasquez. It is a work which is essential for all who are seriously interested in the study of tumours, but it is more than this, it is a book which can be read with enjoyment and profit by all who care for precise thought nobly expressed, who relish a philosophical flavour, and who remember a great student of natural history.

H.J.B.A.

Modern Trends in Orthopædics. Edited by SIR HARRY PLATT. Butterworth. *Price* 45*s.*

Individual views and preferences make the study of orthopædic surgery difficult for the senior student and the junior post-graduate. This book fills a most useful place between the standard textbooks of orthopædics, of which there are many good ones, and a regular perusal of the literature. Certain controversial subjects and those branches in which there have been advances recently, are taken and discussed in detail by surgeons experienced in the particular disease or condition. To mention a few, there are excellent chapters on tuberculosis of joints by Girdlestone, chronic arthritis by Capener and the bone dystrophies by Jackson Burrows.

The reproduction of the X-ray plates is occasionally poor and not up to the high standard of the rest of the book.

An excellent book which can be thoroughly recommended.

A.J.D.

Common Diseases of the Ear, Nose and Throat. By PHILIP READING. Churchill *Price* 21*s.*

To the average student the E.N.T. appointment is largely a grappling with the unknown and unfamiliar, and to so many practitioners any but the simplest deviation from the normal in this branch of surgery demands the advice of the specialist. Into this new book Mr. Philip Reading has packed a mass of facts. Possibly the literary style is inelegant, but the writing is clear and succinct and its order most logical. Not only the tyro but also the established practitioner will appreciate this publication as a wealth of information and good sense in diseases of the ear, nose and throat.

G.

Notes on Communicable Diseases of Laboratory Animals. By H. J. PARISH. Livingstone. *Price* 3*s.*

This booklet contains much valuable information not only on the diseases in common laboratory animals, but also on their treatment and especially on their prevention. It should be available for reference to all (including assistants) interested in the use of animals for experimental work.

J.M.R.

Recent Advances in Pharmacology. By J. M. ROBSON and C. A. KEELE. Churchill. *Price* 24*s.*

This is an excellent book. It is well produced and well illustrated, and has a most comprehensive bibliography, extending to early 1950. A good and up-to-date account of antibiotic substances is given, and the chapters on the thyroid gland, anticoagulant and antihistamine drugs are of special value to the clinician. There are well balanced reviews of the physiologically active steroids, and of drugs affecting ganglionic and neuromuscular transmission. A useful account of some simple statistical procedures is included, and there is a stimulating section on the control of body functions by chemical substances. The book suffers from compression, but this does not excuse the badly constructed sentences which occasionally appear.

C.L.J.

Cell Physiology and Pharmacology. By J. F. DANIELLI. Elsevier : Cleaver Hume. *Price* 24*s.*

The purpose of this book, according to the author's preface, is to direct the attention of chemists, biologists, pharmacologists and medical men to the biological aspects of drug action, and to stimulate research into this subject. It is very definitely a book for specialists, and to a medical man with no special knowledge of the subject, the contents were obscure. The latter half of the book, dealing with the actions of drugs on enzyme systems and cell surfaces, was the more interesting and thought-provoking. References to published work are given at the end of each chapter.

W.H.H.M.

Anatomy for Dental Students. By MARY LUCAS KEENE and J. WHILLIS. Arnold. *Price* 40*s.*

The first half of this new book deals with the fundamentals of systemic human anatomy and the second with the regional anatomy of head and neck. The text is excellent and many new illustrations are included. Sections on muscle action in swallowing, blowing, etc., will help the student better to understand these functions.

Possible criticisms are that certain vertebral muscle attachments are not given more fully and that the text on development and growth of the jaws is not more amply illustrated.

The appearance of this book is to be welcomed warmly as it will help the dental student and teacher to select the right material.

P.C.G.

A Pocket Obstetrics. By ARTHUR C. H. BELL. 2nd Edition. Churchill. *Price* 7*s.* 6*d.*

This well written and readable book presents obstetric facts concisely, a great deal of information being given in its hundred and fifty pages.

It fufills its author's claim, in that it is suitable for revision, when the reader is already familiar with the contents of the standard textbooks on the subject.

The book can be recommended to those who wish to revise the subject.

R.W.H.

Correspondence

"Baker"

SIR,—In September Baker will retire from the post of Senior Technician in the Physiology Department after fifty years service. This is the unique record of a unique character whom generations of Guy's men will remember with affection and gratitude. Affection for his constant cheerful good nature and gratitude for his generous help to all who showed a desire to learn. Those who have had more personal contact with him would add their appreciation of his transparent honesty and unfailing loyalty.

I feel sure that many Guy's men would like to record their appreciation of Baker's service by some practical token. It is proposed to make him a present and contributions for this purpose should be sent to me in the Physiology Department.

The Medical School is not going to lose Baker for he is still full of life and spirit. He will continue to assist in Biochemistry and Chemical Physiology, his duties being reduced to enable him to enjoy some well-earned leisure.

Yours etc.,

Physiological Laboratory,
Guy's Hospital, S.E.1.

W. R. SPURRELL.

Medicine and Money

SIR,—My feeling on reading the Editorial of last issue is that the writer is not quite clear as to the meaning of the word "dignity". To me it signifies worth, and not some pompous, snobbish or pecksniffian attribute. If read in this context, the remuneration of medical men does bear a very considerable relationship to their dignity.

In the past a medical man made most of his income by persuading his colleagues, specialists or G.P.s, his students and his patients, that he was a good and conscientious doctor, and that he had considerable worth, and for that worth he was justified in asking for his deserts.

On the whole this method worked very reasonably. Now for better or for worse, specialists are paid by the hour, and G.P.'s by the number of patients they can squeeze into their lists, and remuneration depends on a struggle between two sides which has already lasted an incredible time.

It would be absurd to expect the representatives of the profession to say to the Ministry, and through the Ministry to the Treasury, that because medical men feel that their greatest reward is happiness, interest, contentment and friendship, and that parsons, a grossly underpaid profession, only receive £350 a year that then as honourable men they must accept the verdict of those departments as to their remuneration and not fight for a just and adequate compromise.

It is most unfortunate that the public is being continually confronted by this extremely complicated wrangle, but to the doctor who never asked for this method of assessment, who is forced to sit almost to saturation point on committees, and who feels that the agreed terms are not being adhered to, it is vital not only for himself but for the future members of the profession.

Yours, etc.,

115a Harley Street,
W.1.

O. GAYER MORGAN.

The Hospital Clock.

SIR,—Alas, is Time to be with us no more? Anxious physicians, harried surgeons, learned professors and strolling students late for lectures, cast an eye to that familiar spot above the Chapel. They are dumbfounded.

When is that bastion of "Guy's Time"—the Chapel clock to be restored to us in working order, no longer heralding the midnight hour throughout the long day?

Yours, etc.,

Guy's Hospital, S.E.1.

P. HUME KENDALL.

Sport

CRICKET

Guy's *v.* Kenley

At Kenley. Result—Lost.

17th June, 1950.

Guy's 114. Kenley 115-0.

Guy's

D. M. E. Allen, c. and b. Graves	13
A. F. Jones, c. White b. Graves	4
P. L. Pickett, c. Kennedy b. Graves	14
D. M. Lipington, run out	28
N. R. Cooke, c. and b. Trowbridge	16
W. Howells, b. Waterhouse	20
H. R. Prentice, b. Vincer	6
H. Bissoon-Dath, l.b.w. Vincer	0
R. Sandfield, c. and b. Waterhouse	2
T. Smith, b. Vincer	7
W. Tweed, not out	0
Extras	4
Total	114

Guy's *v.* Metropolitan Police

At H.O.P. Result—Lost.

24th June, 1950.

Metropolitan Police 161-9 dec. Guy's 155.

Guy's

D. Blake, l.b.w. Reynolds	37
D. M. E. Allen, l.b.w. Almond	17
P. L. Pickett, b. Pinhey	50
N. R. Cooke, b. Sealey	0
W. Howells, st. Richards b. Sealey	3
K. Gray, b. Sealey	0
H. R. Prentice, c. Wood b. Sealey	2
D. M. Lipington, ct. Richards b. Sealey	0
A. d'A. Fearn, c. Wood b. Sealey	23
E. R. Gibbons, not out	14
W. Tweed, run out	2
Extras	7
Total	155

Bowling : C. W. Sealey 13-0-45-6.

Guy's Bowling : W. Tweed 9-1-22-4; D. M. E. Allen, 10-0-52-4.

Guy's *v.* Bognor

At Bognor. Result—Lost.

2nd July, 1950.

Guy's 190. Bognor 191-4.

Guy's

D. E. Blake, c. Wright b. Dunlop	39
A. F. Jones, b. Dunlop	30
N. R. Cooke, b. Dunlop	0
W. Howells, b. Reynolds	19
H. Bissoon-Dath, b. Reynolds	4
D. M. Lipington, c. Drake b. Reynolds	11
E. R. Gibbons, b. Dunlop	24
H. C. F. Meyer, not out	44
M. A. C. Lyon, b. Dunlop	0
C. Robinson, b. Reynolds	4
P. A. T. Martin, b. Wright	1
Extras	14
Total	190

Bowling : W. Howells, 7-1-14-2; M. A. C. Lyon, 19-5-46-1.

Guy's 2nd XI *v.* Kenley 2nd XI

At H.O.P. Result—Draw.

17th June, 1950.

Guy's 173. Kenley 128-6.

A. d'A. Fearn 56, H. C. F. Meyer, 58, A. Cahill 27.

Bowling : M. A. C. Lyon, 14-5-32-3.; J. Croft, 12-1-26-1; A. d'A. Fearn, 7-0-26-1.

Guy's *v.* Architectural Association

At Elstree. Result—Won.

8th July, 1950.

Architectural Association 56. Guy's 57-2.

Guy's

P. S. B. Russell, b. Morrison	5
D. M. E. Allen, c. and b. Morrison	8
M. A. C. Lyon, not out	17
H. C. F. Meyer, not out	18
Extras	9
W. Howells	did not bat
W. Birch	,,
H. Jones	,,
E. R. Gibbons	,,
P. L. Pickett	,,
H. R. Prentice	,,
A. F. Jones	,,
Total	57

Guy's Bowling : P. L. Pickett 4-1-4-5; P. S. B. Russell, 8-2-20-2; D. M. E. Allen, 6-1-14-2; M. A. C. Lyon, 6-2-15-1.

Guy's *v.* Streatham

At H.O.P. Result—Won.

9th July, 1950.

Guy's 178. Streatham 87.

Guy's

D. E. Blake, st. Hall b. O'Flynn	25
D. M. E. Allen, c. Hall b. Palmer	23
P. S. B. Russell, l.b.w. Perkins	1
A. F. Jones, c. and b. O'Flynn	0
W. J. Howells, run out	69
H. R. Prentice, b. Ellis	6
H. Bissoon-Dath, c. Hall b. Plummer	8
M. A. C. Lyon, c. Trent b. Ellis	14
E. R. Gibbons, c. Ellis b. Palmer	7
H. C. F. Meyer, not out	9
A. d'A. Fearn, b. Palmer	2
Extras	14
Total	178

Guy's Bowling : H. Bissoon-Dath, 6-1-18-3; P. S. B. Russell, 6-1-21-2; M. A. C. Lyon, 5-1-18-2; D. M. E. Allen, 6-0-24-2.

HOSPITALS CUP

SEMI-FINAL

Guy's *v.* St. Mary's

At Teddington. Result—Draw.

10th July, 1950.

Rain stopped play.

Guy's

D. E. Blake, not out	57
D. M. E. Allen, l.b.w. Morbey	4
P. L. Pickett, c. Speight b. Morbey	0
A. F. Jones, c. Reddy b. Morbey	0
P. S. B. Russell c. Garnham b. Speight	16
W. J. Howells, l.b.w. Garnham	12
N. R. Cooke, not out	1
H. Bissoon-Dath	did not bat
M. A. C. Lyon	,,
S. S. R. Earl	,,
H. R. Prentice	,,
Total	90

Bowling : R. Morbey, 9-2-35-3.

Guy's 2nd XI *v.* Lewisham

At H.O.P. Result—Won.

8th July, 1950.

Guy's 77. Lewisham 75.

A. Cahill 28.

Bowling : M. Wooding, 9-2-12-6; R. F. Hodson, 7-3-11-2.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence duties on 1st October, 1950 :

Conservative Dental Surgery :

1 Registrar for 6 sessions per week—salary at the proportional rate of £775 per annum in the first year.

2 Registrars for 3 sessions each per week—salary at the proportional rate of £775 per annum in the first year.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1., to whom applications should be sent not later than Friday, **18th August, 1950.**

PASS LIST

CONJOINT BOARD

June 1950.

M.R.C.S., L.R.C.P.

Anatomy

J. K. Anderson
V. C. J. Barker
C. Bishop
J. Bullen
D. Dodshon
J. Endean
J. G. P. Hunt
L. R. Jenkins
J. W. Kirkbride
P. Konfortion
D. B. Longmore
P. A. T. Martin
I. F. S. Rae
G. S. Rawson
A. P. O. Stewart
R. W. P. Yates

Physiology

V. C. J. Barker
C. Bishop
J. A. A. Bullard
J. Bullen
D. Dodshon
J. G. P. Hunt
L. R. Jenkins
D. B. Longmore
P. A. T. Martin
W. P. N. Moore
I. F. S. Rae
G. S. Rawson
A. P. O. Stewart
R. W. P. Yates

Pharmacology

F. J. A. Bateman
R. J. O. Catlin
B. J. Cremin
W. F. T. Davis
P. Dinmore
H. P. Duke
J. Eastwood
E. Fincham
A. I. Fram
E. G. Haydon
V. R. Jones
P. F. P. Lansdown
A. V. Large
J. M. Newton
C. H. Opie
J. E. Scriven
G. B. Skinner
A. Trenhaile
C. H. W. Warne
J. D. Waye
R. S. Wells

UNIVERSITY OF CAMBRIDGE

M.B.

Final Examination.

Easter Term 1950

Part I.

Surgery, Midwifery and Gynaecology

J. A. C. Bamford
J. W. Bradbeer
J. W. Draper
P. H. Gorodi
J. A. J. Smith

Part II.

Principles and Practice of Physic, Pathology and Pharmacology

J. W. B. Dalgleish
K. W. Gray
G. Holden
G. N. St. J. Penney
D. R. Pugh
P. L. Williams

UNIVERSITY OF OXFORD

Trinity Term 1950.

General Pathology and Bacteriology

W. T. Barrett
J. A. Smith

Medicine, Surgery and Midwifery

J. G. Armstrong
J. M. D. Hooper
W. A. Openshaw
J. Taylor
C. N. Watson
J. H. Wilson

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Final Examination

June 1950.

Part I.

Surgery

M. E. S. Bathurst
J. J. Dickens
A. G. Gapper
W. H. Garland
H. S. Irvine
P. R. Jones
J. C. Leckie
D. M. J. Lyons
F. R. B. Mathias
N. J. Mayson
K. F. C. Muncey
O. D. Nazroo
W. D. V. Ryan
P. J. Saville
T. M. Smith
J. J. F. Staub
C. A. P. Steele
A. V. Westlake

Part II.

Dental Surgery

W. A. B. Brown
D. R. Burnapp
J. J. Dickens
W. H. Garland
P. E. Gerrard
B. A. Hill
R. Karat
E. D. Morgan
D. J. Murch
H. W. Powell
A. B. Price
G. F. Thompson
R. V. Warren
J. L. Wynne

First Examination

June 1950

Anatomy and Physiology

J. E. Blinkhorn
F. L. Brown
W. A. B. Cahill
B. S. H. Cornhill
A. d'A. Fearn
K. J. Gilbert
P. A. McGuckin
F. H. Trist

Special Anatomy and Physiology

G. P. Beresford
J. E. Blinkhorn
F. L. Brown
J. M. Cautley
B. S. H. Cornhill
J. G. Davies
A. d'A. Fearn
A. G. Hitchcock
W. J. Howells
E. A. King-Turner
E. G. Lewis
S. A. Lewis
F. L. Richards
A. B. Grantley Smith

UNIVERSITY OF LONDON

Post-graduate Diploma in Medical Radiology (Diagnosis) Part I.

June 1950

A. K. Banerji
H. Ward

BIRTHS

MARTIN.—On 28th June, 1950, at Winnipeg, to Kenneth and Mary (née Workman)—a son, Charles, Nicholas.

THOMAS.—On July 6th, 1950, at Taplow, to Anne (née Doogan) wife of Dr. Gerald Thomas—a daughter, Geraldine.

DEATHS

BIDDLE.—On June 7th, 1950, Henry George Biddle, M.R.C.S., L.R.C.P., of Stradbrooke, Diss, Norfolk, aged 83 years.

STEVENSON.—On July 14th, 1950, Claude Maberly Stevenson, M.D., of 90 Chesterton Road, Cambridge.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1619 *12th August, 1950* *Ninepence*

PASSIM

THERE must be few who will disagree with the dictum that "prevention of disease is the aim of modern medicine."* Of this we are sure. Whether however, the prevention of disease is receiving within our own hospital as much direct attention as it should do is by no means so certain.

It may be held that each new advance in treatment, whether surgical or medical or in any other department, brings the prevention of disease one step nearer. Advances in treatment are indeed being made very rapidly, some within this hospital. There comes a time, however, when the attention of the research clinician ought to be turned away from the treatment of disease, and the tracing backwards of its course, towards its origin. There comes a time when his attention ought to be turned towards the circumstances in which disease arises. It is our contention that, admirable though the handling of diseased patients at Guy's may be, insufficient attention is being paid to the now healthy but potentially sick. The reason for this is the ignorance which exists of the early ætiology of so many diseases. The reason for this ignorance is in many cases insufficient inquiry. If the relative frequency of mortal and disabling diseases were to be kept prominently in mind it would act as a useful guide as to which major channels ought to be the subject of concentrated enquiries. It is, we would stress, one thing to treat a patient for the disease from which he is suffering and a quite different, perhaps much more laborious thing to detect in patients a proclivity to disease.

Research in any hospital is to some extent an administrative matter. A balance must obviously be kept between that part of a hospital's function which is directed towards treatment and that which is directed towards research or, for that matter, teaching. And yet neither treatment nor teaching need, surely, prevent more "clinical" research being done by both the senior and junior hospital staff. At present there seems to be too little. Two departments, the Student's Health Service and the Department of Propyhlaxis in the Dental School—there may be others—must be exempted from this criticism, and these we mention as examples of an approach which might be made more widely.

The prevention of disease, and suitable research is not however solely a matter for the hospital. The family doctor is in this, as in so much else, a key to the situation. He it is who is in daily contact with healthy as well as sick patients. He might, without adding to his burden of work, be included in a research group. Suppose, to take examples from three different departments, that a group of male patients between 40 and 50 years who were suffering from an alteration of bowel habit of above two months' duration were to be regularly examined and investigated. Might not some valuable light be thrown on the early pathology of carcimona of the colon? Or suppose that healthy pregnant women were to be suitably tested. Might not valuable light be thrown on those unexplained miscarriages which so often occur in otherwise apparently normal women? Or, again, suppose that symptomless patients who once had had rheumatic fever were to be regularly examined and investigated, might not some early warning of an impending second attack be discovered?

We could quote similar examples from every other department, not in criticism, but to underline our contention that the natural history of disease starts with an apparently healthy patient.

If, then, by the methods indicated, more of the factors which predispose to disease could be brought to light it seems to us that "the goal of modern medicine," "the prevention of disease" might be brought much more nearly within our grasp than at present it seems likely so to be.

We record with great regret the death on July 28th of Mr. E. C. Hughes, Consulting Surgeon to the Hospital. An obituary notice will be found on another page.

* "An Introduction to Pathology" by Professor G. Payling Wright, D.M., F.R.C.P., page 4.

Obituary

Mr. E. C. HUGHES

ERNEST CRANMER HUGHES died at Tonbridge on July 28th, 1950. He was known and loved by generations of Guy's men as "Joey" Hughes. In his fine character, his freedom from unkindness and rancour in any form, his unusual clinical acumen, his outstanding gifts as a teacher, his humorous, quizzical approach, and his deep devotion to his old hospital, he was outstanding. He will be missed as few men are missed.

Hughes came to Guy's from Clare College, Cambridge, in 1901. He obtained the Fellowship of the College of Surgeons in 1906, and took the Mastership of the University of Cambridge, with W. M. Mollison, the same year. He was appointed Assistant Surgeon in 1911, full surgeon in 1932, and consulting surgeon in 1938. Though this was the date of his retirement under the age limit, he was asked to continue his ward rounds—the first occasion on which any member of the staff had been paid this compliment. On the outbreak of war in 1939, he was appointed surgeon to the Kent County Hospital at Pembury, when this became incorporated in the E.M.S. scheme, and when the Medical School was evacuated to Pembury he became once again senior surgeon and teacher of surgery in his old hospital.

Hughes was a fine surgeon, and his modesty alone prevented him from gaining in the profession in general the reputation he held among those who knew his work. As a young man he came under the influence of two very great men; he was House Surgeon to Arbuthnot Lane and Assistant Surgeon to F. J. Steward, and he showed the Lane influence in his clean anatomical technique and learned from Steward his careful examination of patients, his clinical judgment, and the unexplained knack of always being right in his diagnoses. He was general in his interests, and always up to date in his information. His accurate knowledge of the latest literature on a wide range of subjects was a recurring rebuke to his juniors, but some at any rate of this information was acquired in that best of surgical clubs and most stimulating of post-graduate courses, the Court of Examiners of the Royal College of Surgeons. Hughes was a member of the Court from 1930 till 1940, and he also examined in the Universities of Cambridge and Birmingham.

His modesty was the natural outcome of a character that thought well of everyone, that never allowed a bitter comment or an unkind criticism to pass his lips. He could criticise, and part of his success as a teacher lay in his ability to pierce pretence and unmask pomposity with a telling phrase, but he criticised justly and kindly, with a look of this-hurts-me-more-than-it-hurts-you astonishment, and a smile in his eye that never reached his lips. He wrote little, and his publications were for the greater part essays on clinical subjects. If he had a particular interest it was in oral surgery. He became lecturer in Operative Dental Surgery on his appointment to the staff, and in 1918 he was made Surgical Tutor to Dental Students. Among his published papers were several on tumours of the jaws and osteomyelitis of the mandible. He shunned the market place, and exercised the influence that he undoubtedly had on the surgery of his time by personal contact alone. He avoided speaking at surgical gatherings and never presided. It was characteristic of the man that his name did not appear in Who's Who.

On his retirement in 1938, I wrote: It is impossible to recapture on paper his teaching methods, yet it is in these that his particular genius lies. He is seldom serious, yet withal so obviously earnest that his chaffing questions can never excuse a careless or flippant reply. He draws the whole class into the family circle, by appeals to each in turn, by interrogations pushed firmly but kindly to the verge of the third degree, and then suddenly transferred to another whose attention seems to flag, by humorous titles assigned to each, describing his rôle in the class ("our consulting physiologist" or "Mr. Pathologos"), his origin ("Mr. B. A. Cantab."), or his personal appearance ("The Bishop"). Ridicule is alien to him, for ridicule suggests malice. The stories related of him are innumerable, all illustrating the whimsical side of his character, his ability to comfort a diffident houseman by the reassurance of a

droll *non sequitur*, his power to alleviate the pain or still the fears of an anxious patient by gentle banter. A young house-surgeon rang him up (this was years ago, for it was George Doherty) about a case that had been operated upon that afternoon over which he was needlessly worried. After listening patiently to the whole story, Hughes said, " Now then, can you give me the exact time ?" " Yes, sir ; three minutes to ten." " Well, if you run like a hare, you'll just get into the Ship before it closes." And again, an old lady, crippled and feeble, limped into Lydia for her weekly visit. To Joey's inquiries she replied, " Oh, Mr. Hughes, I'm not at all well this week. My legs ache so that I can hardly walk." "Ah, Mrs. Green," with a kindly hand on her shoulder, "you've been playing football again."

There has not been such a teacher within the memory of Guy's men, and we shall miss his sound wisdom in these days when students seem to know more about blood chemistry than the feel of the normal breast or rectum, and to spend more time poring over the potboilers of the surgical journalists than in the wards. Above all we shall miss the Joey we came to love.

Our deepest sympathy is extended to Mrs. Hughes, and to his children, Tony and Felicity.

W.H.O.

About the Park

Guy's has recently had the pleasure of entertaining Dental Students from most Scandinavian and several European Countries. Under the auspices of The British Dental Students Association these students have been visiting England. Whilst in London they have been frequent visitors to Guy's. Mr. Gordon Thompson and Mr. John Dixon, have been the Guy's organisers of this visit and we congratulate them on the success of their work.

The Park—that object, sometimes, of so much criticism in the *Gazette*—is looking its best. Those of our readers who cannot see it may be glad to know that at present the grass is looking thick and green and well kept—thanks to our excellent groundsman Mr. Gardner. The flower beds are full of splendid antirrhinums, zinnias and salvias and the plane trees, more widely spaced since their lesser fellows were felled two years ago, look magnificent. The bold plan—which excited much comment at the time—has been fully realised.

Amongst the many foreign visitors who have been welcomed at Guy's this summer is one from the United States who cannot possibly be called foreign. Professor Kark of the University of Illinois now visiting us was born in South Africa and was a student at Guy's in the 1930's. A pillar of the rugger team in his day, we are hoping that, having spent the summer adding to our knowledge of medicine, he will extend his visit and spend the autumn adding to our knowledge of rugger. We can do with it.

Reviews

Post Graduate Obstetrics and Gynæcology. By F. J. BROWN. Butterworth. *Price* 50*s*.

The subject matter in this book is well set out and well printed.

The aim of the author is to give a simple and clear account of various subjects in Obstetrics and Gynæcology, to review them in relation to the recent literature, and to give his personal views about them.

In this task he has succeeded. He gives to the reader in a concise form a wealth of information which is of particular value to a candidate reading for a higher examination, but is also of great interest to anyone practising Obstetrics and Gynæcology.

His personal views in some instances invite argument, but it can be safely assumed that nothing would please the author more than to awaken the reader from his dogmatic slumbers.

For this reason alone the book can be thoroughly recommended.

G.T.H.

Regional Ileitis. By BURRILL B. CROHN, M.D. Staples Press, Ltd. 1949. First Edition. Pp. 259. *Price* 30*s.*

This is an excellent and well-produced monograph by Crohn, after whom regional ileitis has been eponymously named. Representing a detailed analysis of his own 298 cases of the disease, it marks a unique contribution to this subject, about which there is still a good deal to be learned.

By far the majority of the cases (222) fall into the group labelled "chronic", in which the treatment of choice is surgical. The merits of one and two stage resection and anastomosis with exclusion are carefully weighed up, with preference, if any, expressed for the last of the three. It is pointed out that most cases involve the ileum at a distance of 8-15 ins. from the ileo-cæcal valve and a "cure" rate of 80% can be reasonably expected.

In the other three groups of acute ileitis (16 cases), ileo-jejunitis (38 cases) and combined ileitis and colitis (22 cases) treatment is less simple, as insoluble sulfa drugs, penicillin, streptomycin and radiotherapy have all proved disappointing.

It is interesting to observe that trauma is regarded as a definite ætiological factor in some cases and to note the emphasis laid on rectal complications of ileitis and the association of the disease with ulcerative colitis.

The figures and reproductions of X-rays are good, but a more detailed study of the pathology might well have been included. The book, however, is one which will appeal to the abdominal surgeon and the gastro-enterologist, to whom it is particularly recommended.

G.B.

A Practical Handbook of Psychiatry for Students and Nurses. By DORIS MINSKI, M.D., F.R.C.P., D.P.M. Wm. Heineman. *Price* 6*s.*

This book for students and nurses gives a good insight into the rudiments of psychiatry and it stresses the development of mind and body as an entity. Treatments both physical and psychiatric are outlined and the chapter on "Specialised forms of treatment" should be helpful to those nursing psychiatric patients.

The book includes brief accounts on the development and adaptation of the individual, child psychology, and general symptomatology and classification. It is, however, but an introduction to those specialising in psychiatry.

J.B.

A Histology of the Body Tissues. By MARGARET GILLISON. Livingstone, Edinburgh. *Price* 15*s.*

This is an excellent book, admirably fulfilling the Author's aim—to bridge the gap between the brief references to the tissues of the body to be found in books dealing primarily with Anatomy and Physiology, and the detailed accounts in the textbooks of pure histology. Equally important and useful to the Physiotherapist is the emphasis laid on the functional significance of the tissues.

The book is well arranged, and the contained information set out simply and clearly. The illustrations are beautifully drawn, and add substantially to the instructive value of the book.

S.E.

Communicable Diseases and Their Nursing Care. By EVELYN PEARCE. Faber and Faber. *Price* 14*s.* 6*d.*

Miss Pearce is to be congratulated on this evolution from "Fevers and Fever Nursing" first published in 1930. In recent years, fever nursing has become less isolated and diseases which were once limited to tropical countries are found in many parts of the world. All nurses will find this book a useful addition to their library.

Nursing. By GLADYS M. HARDY. Foyles. *Price* 2*s.* 6*d.*

This small paper-cover book may be useful as an introduction to nursing, but it is too brief to recommend to student nurses taking a general nursing training for State Registration.

F.T.

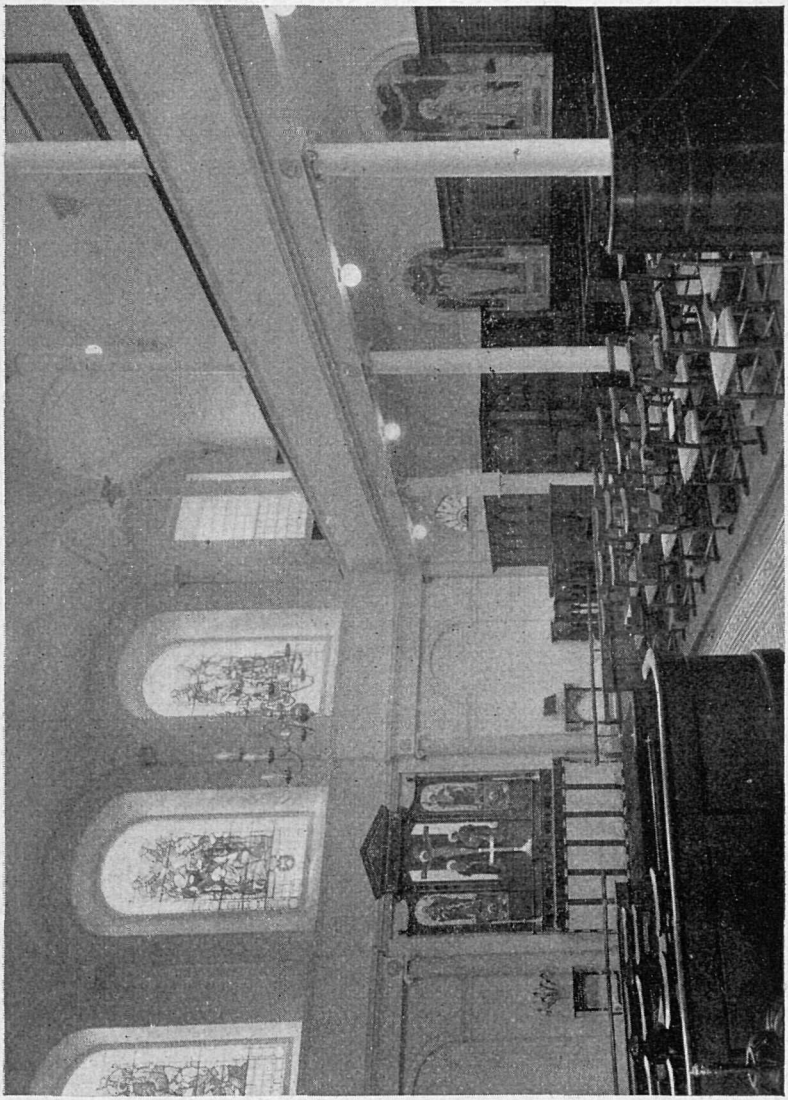


Photo by Holland & Hannen and Cubitts

GUY'S CHAPEL

A Glimpse of American Obstetrics and Gynæcology

By T. L. T. Lewis, F.R.C.S., M.R.C.O.G.

DURING seven weeks in the United States of America, part of which was spent travelling, sightseeing and attending the Fourth International Congress in Obstetrics and Gynæcology, I cannot claim to have caught more than a glimpse of American practice. In such an enormous country my visit was of necessity confined to a very small part on the Eastern Seaboard and my impressions were gained at Hospitals in New York, Baltimore and Boston. Everywhere I went I was received with the kindest hospitality but, because there is in existence an exchange of members of the staff between Guy's and Johns Hopkins, the welcome I was given in Baltimore was especially warm and I spent a longer time there than elsewhere. For this reason many of these remarks apply particularly to that hospital. While most of the article is concerned with points of difference in practice in the two countries it is as well to remember that underlying these differences there is a fundamental similiarity in thought.

In certain parts of the United States obstetrics and gynæcology are not practised as a combined speciality. At the Johns Hopkins for example, the two departments are quite self-contained and are run by separate staffs, female urology being included in the work of the gynæcology department, whereas at the Massachusetts General Hospital in Boston gynæcology is a branch of general surgery. The key man in the obstetric department is the Resident (or Senior Registrar). He does all the routine work with the help of Assistant Residents and Interns (House-Officers). He is responsible to the whole-time Professor who directs the department as a unit and under whom all patients are admitted. Whole-time Assistant Professors and part-time Visiting Surgeons participate in taking-in and teaching.

Normal obstetrics in America differs from ours by the stress laid on analgesia in labour and anæsthesia at delivery and the consequent increase in the use of forceps. This is partly the result of the trend for more and more institutional midwifery, which has led, at the present time, to 70% of babies being born in hospital under the care of obstetric specialists. American obstetricians are aware, however, that their methods are not universally applicable.

Routine ante-natal care is carried out by the Residents and Interns, but abnormal cases are referred to a special clinic held by the Professor. Medical students do not attend ante-natal clinics as part of their curriculum. Elaborate external pelvimetry is done and vaginal examinations are made at the first visit so that cases of suspected contracted pelvis are investigated early in pregnancy. This means that X-ray pelvimetry is carried out on 35% of patients, including all primigravidæ under 17 or over 35 years, all patients with malpresentations, with bad obstetric histories or with evidence of clinical disproportion near term.

Patients in labour are admitted to the delivery floor where they are confined and afterwards taken to a postnatal ward. Their analgesia is in charge of an anæsthetist attached to the department who often has a "research program" on hand. Commonly used in labour are caudal analgesia, barbiturates (seconal and nembutal), scopolamine, demerol (pethidine) and suggestion according to the technique of Grantley Dick Read,which has recently become popular in America. For delivery, gas and oxygen sometimes combined with ether, ether on an open mask, spinal anæsthesia (sub-arachnoid and extra-dural), caudal analgesia, pudendal nerve block and intravenous pentothal are in general use. In no hospital did I see morphia or chloral given in labour, nor did I see a Minnitt's machine or any apparatus for self-administered trilene. During labour frequent rectal examinations are made and vaginal examinations are seldom done. The descent of the head is observed carefully and described in relation to the ischial spines as a number of centimetres above or below them, and the diameter of dilatation of the cervix is similarly estimated in centimetres. X-rays are often used to follow the course of abnormal labour.

" Prophylactic forceps " and episiotomy are routine for the delivery of primigravidæ. Prophylaxis here refers to anæsthesia given for the pain of delivery and it follows that spontaneous delivery is rarely obtainable under the circumstances so that forceps have to be used. The operation is usually called " out-let " or "low" forceps, but I think the term " low-mid " forceps would be more accurate. Some multigravidæ are permitted a normal delivery but many are treated by anæsthesia, episiotomy and forceps. The third stage of labour is often shortened by the use of oxytocics or external uterine manipulation. I saw no case of severe post-partum hæmorrhage although I noticed that facilities for massive blood transfusion were always at hand and had to be resorted to occasionally, so I was informed. Episiotomy is carried out in order to avoid other injury to the pelvic floor ; it is usually done in the mid-line and I saw two cases in which a tear extended into the rectum. The suturing of episiotomy wounds is very carefully performed with exceedingly fine cat-gut and may take an hour to complete.

My feeling is that a great deal of the interference at delivery is due to unnecessary anæsthesia, although it is only fair to point out that figures for fœtal mortality and maternal morbidity at the hospitals I visited are no worse than ours. In spite of the use of scopolamine and barbiturates during labour and pentothal at delivery I did not see any case of asphyxia neonatorium and I understand that the incidence is low. Caudal analgesia is effective in reducing the pains of labour without slowing its course. It can be prolonged to the time of delivery so that too is painless, although forceps are usually needed to complete it. Because forceps are so commonly used in America anyway, caudal analgesia is not a draw-back there on that account. One of the conditions of its use, however, is that an expert anæsthetist skilled in its administration needs to be present so long as the analgesia remains acting. I saw it used by Professor Robert Hingson who in 1941 first introduced the method as a continuous injection. He has been personally responsible for 12,000 caudal anæsthetics with two deaths directly attributable to the operation. One patient had an ascending infection of the sub-arachnoid space and the other developed a peri-sacral abcess which needed opening under a general anæsthetic ; ten days later she died from a pulmonary embolus. I would not recommend its general use in this country because of our different attitude to forceps delivery, which we believe does prejudice the chance of the baby and also increases the risk of morbidity of the mother.

Early ambulation is universally practised in America. This is partly on account of the war and partly on account of the greater number of women delivered in hospitals not being met by a corresponding increase in the number of beds. It is claimed that this does them no harm. but that, on the contrary they feel better and involution is quicker. At the present time women are allowed up on the second or third day of the puerperium and go home from the second to the eighth day. It is realised that this is not ideal and were space available they would be kept in hospital for ten to fourteen days, although they would be allowed up just as early. It remains to be seen what effect early rising has upon the incidence of prolapse in later life. At the Johns Hopkins there are more than three times as many deliveries in a year as there are at Guy's with an equal number of beds. A theoretical advantage of early ambulation is the prevention of thrombosis and embolism. While I was in Baltimore, however, a girl was brought in dead from pulmonary embolism (proved at post-mortem examination) ten days after a normal confinement. She was up on the second day after delivery and went home on the seventh where she led a normal life until she died suddenly after a good meal.

A general custom, useful for the visitor, is the holding of regular conferences. There are weekly obstetric and gynæcological, fœtal mortality and pathological conferences. I attended also one of the monthly maternal mortality conferences in the State of Maryland, where every maternal death for the month was openly discussed and criticism was freely offered. At these meetings attend the Professor Assistant Professors, Visiting Surgeons, Residents, Interns, Students and outside visitors. Subjects are presented for discussion, papers are read, interesting cases are reported, research work is reviewed and "programs" of work are drawn up. These gatherings are to a great extent informal and everyone present takes a part. They can be most instructive for the qualified man

and they indicate the degree to which accent is placed on post-graduate teaching. This is perhaps another reflection of the tendency for American obstetrics to gravitate wholly into the hands of specialists. The Johns Hopkins was, however, originally designed to be a centre of post-graduate teaching.

Toxæmias of pregnancy are common and reveal another fundamental difference in the presence of a large negro population. The incidence of toxæmia in negros is about 15% of pregnancies and the cases I saw were generally more severe than those we get at Guy's. For instance, eye signs are especially prominent but, of the cases admitted before the onset of eclampsia, fits are rare, pointing to prompt and adequate treatment. Severe cases are put to bed and given intramuscular magnesium sulphate which depresses the central nervous system. Dosage is initially 10 grams as a rule, followed by 5 grams 4-hourly, using a 50% solution. Cæsarian section as a means of terminating pregnancy is resorted to in 6% of all toxæmias. In association with their liability to develop toxæmia, negro women have a high incidence of essential and malignant hypertension. An equally high incidence of hypertensive disease in male negros suggests that a racial tendency to hypertension may predispose to the frequent occurrence of toxæmias in the females, but this is still open to speculation.

In neither New York nor Baltimore is it the usual practice to treat diabetic patients with œstrogens in spite of the work of Priscilla White in Boston. Delivery is carried out by cæsarian section in about 50% of the cases. Great stress is laid on the administration of oxygen to the babies of diabetic mothers.

Antepartum hæmorrhage, like toxæmia, is common among negros, and considerable reliance is placed upon soft-tissue X-rays for localisation of the placenta. It is claimed that 90% of placentas can be seen on X-ray, but that excessive obesity or hydramnios make it impossible to be sure of the situation in the remainder. These figures are too optimistic, I think, although it is certainly possible to see the placenta in some cases in which the diagnosis between placenta prævia and accidental hæmorrhage is in doubt and this has a distinct advantage over diagnosis by palpation. Revealed hæmorrhage is referred to as "rupture of the marginal sinus of the placenta," and concealed hæmorrhage as "abruptio placentæ" Marginal sinus rupture is diagnosed by careful examination of the placenta after delivery and is said to account for many unexplained fœtal deaths in labour. At the Johns Hopkins abruptio placentæ is treated by blood transfusion and cæsarian section. There has been no maternal death in the last thirty consecutive cases treated in this way, but while I was there a hysterectomy was done to control uterine hæmorrhage at operation. At the Boston Lying-in Hospital, on the other hand, cæsarian section is hardly ever performed for the condition and, in spite of the use of pitocin and the practice of rupturing membranes in the acute stage of the disease, their results are as good. On occasion an X-ray fails to localise the placenta in a patient in whom a placenta prævia may be present; in such a case examination under anæsthesia is still performed, for the conservative management of these cases has not yet been generally adopted.

The attitude to the management of patients with a uterine scar varies from centre to centre. It is quite commonly believed that following a cæsarian section the risk of rupture of the uterus is too great for labour to be allowed and a repeat section is done, therefore, purely on the grounds that a cæsarian was done before. At the Margaret Hague Memorial Hospital in Jersey City, where there are over ten thousand deliveries each year, Dr. Sam Cosgrove adopts the opposite view. At his clinic I saw a young patient with a small pelvis who had had a cæsarian section for a failed trial of labour in her first pregnancy booked for a second trial of labour. Working at the same hospital are doctors Waters and Norton, both exponents of extra-peritoneal cæsarian section which is enjoying a vogue all over America. The operation is a laborious modification of the lower segment technique, access to the uterus being obtained through an incision in the fascia behind the bladder while the peritoneum is displaced upwards and not opened. This seems to be needlessly complicated and the value of not entering the peritoneum in the septic cases in which the operation is said to be indicated seems to be over-rated. And, although filled with methylene blue, the bladder is occasionally opened, an accident which, it is said, does not lead to fistula formation.

It has become the tradition among Residents to treat patients with puerperal pyrexia without due regard for a complete diagnosis. It is not uncommon to see cases being treated simultaneously with a sulphonamide, penicillin, streptomycin and aureomycin in whom no investigation has been done. It is accepted as a means of assuring the greatest number of quick cures and thereby relieving the pressure on beds which is so great.

Professor Eastman of the Johns Hopkins is convinced of the risk in labour run by women after many pregnancies. He advises sterilisation to patients in his department after the eighth child because he considers that the dangers of the operation are less than those of a further pregnancy. It is done within two or three days of delivery under local anæsthesia using the Pomeroy technique. In just under 1,400 cases there have been two operative deaths, both from pulmonary emboli, and four failures to sterilize.

Gynæcological practice more resembles our own. There are differences in administration and teaching resulting from its separation from obstetrics in some centres, the presence of a Professor directing the service and the regularly held conferences. A recent popular addition to their out-patient clinics is one for cancer detection. Many patients attend this clinic through newspaper and radio propoganda. There a general and special clinical examination is made by a gynæcologist ; vaginal smears and cervical biopsies are taken as a routine. The patient also is examined by an E.N.T. specialist and finally has a "G.I. series" performed ; that is, a radiological investigation of the gastro-intestinal tract including a barium meal and a barium enema if she is over the age of fifty. It seems that many of these clinics are functioning because of lay demand and their value has yet to be shown. It is possible that their presence may do more harm than good. In the years 1947-1949 8,955 women attended such clinics in the state of Maryland and 21 carcinomata of the cervix (1 in 430 cases) were found. Of these, 17 were growths diagnosed on inspection and palpitation of the cervix and 4 were in the League of Nations Stage III of advancement. Four were cases of so-called intra-epithelial carcinoma of the cervix or carcinoma-in-situ, an incidence of 1 in 2,240. The lesion is a histological one diagnosed on cervical biopsy or vaginal smear. In two-thirds there is a healthy looking cervix but in about 10% of the cases invasive carcinoma develops, often many years after the appearance of the initial lesion. In evaluating the vaginal smear as a means of diagnosis in 1,800 cases at the Johns Hopkins they found that not a single case of cervical cancer (including intra-epithelial growths) was revealed by a smear when the biopsy failed to show it ; but that in 99 cases of carcinoma the smear was positive in only 63, 11 smears being negative for cancer and 25 unsatisfactory or doubtful. There would therefore not seem to be any advantage of the vaginal smear over biopsy taken in out-patient clinics with a biopsy-punch.

Operating is slower than in England and more attention is paid to hæmostasis. I saw many complicated and time-consuming techniques for repairing prolapses which we would have treated by more simple means. Blood-transfusion is resorted to readily and it was exceptional to see a prolapse operation without a drip running. Nurses often give the anæsthetic and put up the drip. A notable exception to the traditional elaborate operator is Professor Brunschwig of the Memorial Hospital, New York. I saw him eviscerate a patient, removing the uterus, tubes, ovaries, rectum, bladder, urethra and parametrium in thirty-five minutes while five pints of blood were transfused into an arm vein under pressure of oxygen. The operation was done for a local recurrence of carcinoma in the cervix two years after a full course of radiotherapy. At the end of it the ureters were transplanted into the colostomy. Dr. Brunschwig's operative mortality is 10% and he thinks that the survival for three years of a few cases justifies such a last chance procedure.

Because the many Assistant Professors have time available there is considerable research and investigation going on. At the Johns Hopkins Dr. Hellman is experimenting with the use of continuous intravenous posterior pituitary extract in minute doses for uterine inertia, helped by Dr. Reynolds and his tokodynometer, an instrument which records uterine contractions. At present the results appear favourable provided that there is a very careful selection of cases. In the same hospital Dr. Vosburgh is studying the behaviour of water, sodium and iron in the pregnant uterus, placenta and fœtus by means

of radio-active tracer elements. One of his experiments, in which heavy water was used, has led him to believe that the water content of the amniotic fluid near term is completely replaced every three hours. There is also work being done on analgesia in labour, stereoscopic X-ray pelvimetry, the circulation of blood in the placenta and its relation to ante-partum hæmorrhage, habitual abortion and fœtal mortality. So far 108 cases of intra-epithelial carcinoma have been collected at the Johns Hopkins and are being followed. At other hospitals I saw research in the in-coagulability of blood following concealed accidental hæmorrhage; work on a potassium deficiency syndrome which causes death sometimes after major operations; and experiments in detection of radio-sensitivity of carcinoma of the cervix with the use of radio-active phosphorus.

The Americans believe that they are taking the lead in the world of medicine. They are trying many experiments which may fail but whatever criticism may be levelled at them it can be fairly stated that there is no stagnation of thought or practice. My visit has been most stimulating and it has been a refreshing experience to meet so many enthusiastic and charming people.

Correspondence

Chapel Clock

SIR,—I share with your correspondent the inconvenience caused by the defection of the Chapel Clock.

It has been giving trouble for some time but has now come to a standstill. I am informed that the works have to be removed, cleaned and repaired and estimates have been approved recently by the House Committee. This work, which necessitates the erection of scaffolding, is due to start on August 8th, and I trust that when you all return from your holidays and cast your eyes to the familiar spot the clock will be in working order.

I may say that the last record of repairs having to be carried out to the Chapel Clock was in the summer of 1915.

Yours, etc.,

W. D. DOHERTY,
Superintendent.

Superintendent's House.
Guy's Hospital, S.E.1.

Tuberculosis Control

SIR,—You devote seven pages to a lecture on the control of T.B., and in it there is not a word about the absolute necessity for warm clothing that covers the body and iimbs. It is the fashion for even young children to go about half naked. In the south of N.Z. here, the out-patients are crowded with tonsils and adenoids. Up north the climate in N.Z. is much warmer and there are very few cases.

In the reign of Queen Victoria the girls dressed in this fashion, and the novels of that period tell us that T.B. was rife among them: They were "not so strong as the boys, the weaker vessels." Yet as soon as the fashion changed there was no more of this "going off into a decline," and the girls were as strong as the boys—as we know the land girls proved during the war.

Medical examination of recruits for conscription exposes "a tragic state of health," few are found really robust. As boys the body had to work at high pressure to supply that which had been wasted for want of clothes, and like other internal combustion engines overwork wore it out.

There is no analogy in nature for this lack of clothing. The Bible says that man and animals were made on the same pattern, and the air never touches their bare skin. We have hands to make clothing and are also supposed to have intelligence enough to wear it when needed. If we clip a horse so that it can do heavy work that is not natural for it, we have to provide a warm cover. If our animals have a cough we are greatly concerned and take steps to shelter them; we ourselves let a cough go on for months and take no notice. No wonder T.B. gets hold. The hospitals are crammed with cases, and we, like snakes, get used to being cold.

Yours, etc.,

Mangonui, Nak, N.Z. R. S. DUKES.

Comparative Physiology

An Address to the Physiological Society given in January, 1950.

By JOAN ENDEAN

IN the eighteenth century (1735) Linnæus published his "Systema Naturæ." His was the first serious attempt to make a complete survey of the available information about the animal world.

Linnæus classified animals on their grade of morphological similarity, and the essence of his arrangement remains to the present time. It is the foundation upon which zoology is built.

Animals are classified on anatomical grounds. We define animate matter, however, on a physiological basis. We have all learnt that response, metabolism, reproduction and growth are the phenomena by which we distinguish living things from inanimate matter. When the machinery for such activities is present, but no longer functional, we say that the organism is dead.

It is evident, then, that structure and function, or anatomy and physiology, are very closely related. From the Linnean classification a remarkable fact emerges which is that those animals which are closely related in structure, and hence fall into the same class, have a common physiological background.

For example, it is common knowledge that monkeys, horses, and rats (*all belonging to the class Mammalia and the sub-class Eutheria*) *have internal* digestion, breathe by lungs, sleep and move about in a co-ordinated manner. Their essential living functions are very similar to our own. Therefore, this class has been found useful for experimental purposes. The knowledge to be derived from a study of comparative physiology is of great value. From it we have learnt much to help us to understand the functioning of the human body. I would like to emphasize that the interpretation and significance of the facts gained from a study of phenomena in animals depend to a large degree on zoological classification. Thus the knowledge gained from the investigation of monkeys is a more important contribution to human physiology than is similar work on cats. This is the case simply because we know that the Primates are more closely related to man than are the Carnivores. Since this relation is based on anatomical grounds alone, it is remarkable that along with it goes a harmonious parallel of physiological grading.

This functional grading is less precise than the morphological. Animals can be identified completely from parts of bones, hair, teeth, or even footprints, as any palæontologist will verify. The same could not be done with certainty from such data as the animal's temperature, or blood pressure, or sample of alveolar air !

But some physiological characters are more specific : for instance, among higher animals, the blood is physiologically specific to family and genus. In man the blood groups still further increase this specificity so that it operates between groups of individuals. Because of our knowledge of zoological classification, we know at once that the transfusion of blood from an animal such as the sheep, which belongs to the order Artiodactyla, is foredoomed to failure when the recipient belongs to a totally different order such as the Primates. Yet such naive attempts, due to zoological ignorance, are recorded in history.

It is interesting to note here that, fortunately, this specificity is absent from hormones. Extracts of sheep's thyroid can be successfully administered to members of other orders such as the Carnivores and the Primates, including man himself. The extract is even applicable to members of totally different Classes as, for example, the Amphibia and Reptilia, so that we have been able to bring about premature metamorphosis in frog tadpoles. As further illustrations of this point, let me mention the extracts of sheep's adrenals used in the treatment of Addison's disease, the anterior pituitary extracts from pigs, sheep and guinea-pigs, and also the sex hormone extracts from various animals which have been widely used in the treatment of deficiency, or other conditions,

in countless patients. Macleod has shown that the extract of the islet tissue of the fish pancreas relieves the diabetes produced in rabbits resulting from extirpation of the pancreas.

This absence of specificity is a blessing beyond price on our efforts to relieve and prevent human suffering. It is only following on the successful use of such gland extracts from animals sources that the chemist can set to work on the problem of producing synthetic substitutes. If hormones were totally specific, then, in a civilized community at least, this would have made the treatment of such conditions as hormone imbalance in man an impossibility.

The implications of this physiological background among the recent mammals are vital not only for us human beings, but also for our domestic animals—especially for those that are sources of food. If we consider dairy herds, for instance, we see that these animals have become susceptible to diseases almost unknown to them in their wild state. Tuberculosis, pneumonia, skin diseases, physical injuries and vitamin deficiencies, and a host of other conditions, are successfully treated with the same substances and by the same techniques as human beings.

The effects of these substances and systems of treatment were first proved by using such experimental animals as guinea-pigs and mice (both belonging to the Order Rodentia) and cats (Order Carnivora) with the view to preparing the way for the treatment of man. With the development of veterinary science, much of this medical knowledge was applied directly to the domesticated animals, and with highly satisfactory results. Another example of this general absence of specificity in physiological reactions among animals is found in syphilis. The causative organism of this disease is a protozoon. (Treponema pallidum) whose only natural habitat is the human body. Metchnikoff, however, was successful in inoculating chimpanzees, and later rabbits, with the disease which was found to run the same course as in human subjects. Furthermore, the calomel ointment which he invented in all cases prevented the spread of the infection from the site of inoculation.

Let me quote another example. From childhood Pasteur was haunted by the cries of people who had become insane after being bitten by a mad wolf. Years later, he set to work to track the cause of hydrophobia. He did this by injecting the saliva from a mad dog into the sections of rabbit brain which were kept for fourteen days in sealed containers. At the end of this time it was found that the weakened virus, when injected into dogs or human beings, made them immune to hydrophobia and even prevented the onset of the madness when the victim had already been bitten.

All these experiments would have been impossible unless mammalian tissue reacted in a common manner under the same conditions.

I hold that this basic common physiology among vertebrate animals strengthens the evolutionary theory. It is not impossible that the present diverse representatives of the animal world have arisen from common ancestors which had a less specialised anatomical make-up, but whose bodies had an internal economy which was essentially the same as in the recent forms.

Comparative physiologists have made use of this common background and have gained a wealth of knowledge about the physical phenomena of the vital activities. But, of course, from the medical standpoint, the ultimate storehouse of physiological knowledge about man must be the human body. It is known that medicine existed in a workable, though primitive form, as long ago as the Sumerian and Egyptian dynasties. As far as we can judge, it had developed by trial and error on human beings, either as patients or as unfortunate victims of experimentation. But the Ebers Papyrus gives us a prescription for baldness which consisted of equal parts of fat of the hippopotamus, lion, crocodile, goose, snake and ibex, which proves one thing at least—that. before he could dispense his potions, the pharmacist of those far-off days had to be no mean sportsman ! The primitive medicine man little dreamed that animals would be of even greater use to man. What knowledge he had was handed down, and added to, through the centuries and, in spite of a liberal admixture of quackery, it filled in the long waiting period until true medical science grew up side by side with comparative physiology.

While bearing in mind the common denominator of physiological make-up present in the Classes which constitute the Phylum Chordata, we expect that some physiological specialization has occurred. For example, a form of anæmia called bush sickness, occurs in sheep when cobalt is deficient in their diet. Yet horses and rats live in perfect health regardless of the presence or absence of cobalt.

Again, the fungus, Amanita Phaloides, is highly poisonous to man, but harmless to rabbits.

The hedgehog is immune from the effects of viper venom which would kill a dog in a few minutes.

The fertilized eggs of marine fish such as the plaice and sole will not develop unless they are subjected to constant movement. When I was at the marine station at Port Erin, we had the opportunity of observing the fish hatchery. Here, thousands of plaice are hatched and raised through the earliest, and most dangerous, periods of their life. The young fish are subsequently released into the sea and develop to maturity. The larvæ are kept in large indoor tanks which are fitted with a special rocking device. Before the invention of this machine, it was found impossible to raise any fish, however perfect other conditions might be. Dog-fish larvæ, however, develop in still sea water, provided it is constantly renewed and is at a suitable temperature.

I should now like to examine another contribution given us by a study of comparative physiology : electric organs are found only in predatory fishes, and they are particularly well developed in the electric catfish and the torpedo ray. In the catfish, the electric organ is composed of modified skin glands, but in all other species it is derived from modification of voluntary muscle. These organs are made up of disks which are arranged in series reminiscent of Volta's pile. The total potential difference is about 30 volts in the torpedo ray and 200 volts in the catfish. In the intact fish the discharge is a rhythmical one due to stimulation from the central nervous system. Reflex discharge takes place when sensory stimuli are received by the animal. For example, the electric discharge occurs when live fish are placed in the same tank as the catfish. The victims are stunned and the catfish is able to catch and eat them. Electric fish are themselves insensitive to electric shocks, and are not affected by their own voltage or that of other individuals. This electric phenomenon draws attention to the property common to excitable tissues : namely, that an electrical response accompanies excitation. So that electric organs are not so strange to us as they appear at first sight.

Biolumniscence is another specialised effect. Among Vertibrates it is restricted to some genera of fishes, but it is widespread throughout the Invertibrates, for example, the beetle, Lampyris, or so-called glow-worm ; the Polycheat worm, Chætopterus, and many crustaceans. Deep-sea squids, and fish, often have complicated organs with reflectors and lenses which throw the light into a beam, thus providing artificial light in the depths where no daylight can penetrate. Those of us who go shrimping by night cannot fail to be enchanted by the luminescent outline of our net and legs as the minute crustaceans in the water are stimulated into activity. The effect is unforgetable.

An interesting physical aspect of bioluminescence is that the light emitted is cold, about 100% of the radiant energy being emitted as light—a highly efficient method of illumination. The light produced is the result of enzymic oxidation. Thus, by referring to the general physiological background, we realize that the concept of energy transfer by enzymic systems is one that is familiar to us.

A further example of physiological adaptation is found in the sea-snakes which are marine allies of the cobras. These snakes are as much at home in the sea as fish, and are frequently found a thousand miles from shore. In common with other reptiles, sea-snakes breathe air. They have the usual mechanism for this method of respiration, and frequently come to the surface for air. But they are also able to remain under the surface for a long time, possibly hours, owing to the fact that they swallow water and that respiratory

changes take place through the blood vessels of the alimentary tract. A remarkable adaptation to the needs of environment.

Another type of physiological specificity is that of animal scent which is found in nearly every member of the Classes Aves and Mammalia. By the use of their olfactory powers mammals can distinguish between members of different orders and families, and between individuals of their own, or different, species. Examples are numerous: for instance, an elephant can distinguish between a tiger, a man and a mouse, but it also knows the difference between members of its own herd, and those belonging to another group. Again, we all know that dogs have a most critical power of distinguishing between scents. Beagles are trained to follow hares, but not rabbits. Terriers will kill wild foxes, but play with a tame individual kept in the same kennel. Bloodhounds will trail an unknown man, if they are allowed to register his particular scent by smelling an article of his clothing. To date, there is no satisfactory classification of odours. When further work has been done, I think we shall find that smells have as many shades of difference and as much complexity as the phenomena of sound.

The consideration of the special senses brings to mind one of the most challenging and fascinating aspects of comparative physiology: the subject of animal behaviour and communication. Much of animal behaviour has been explained away as the manifestation of inborn urges, or instincts. It is probably true that instincts do play a large part in much of the day-to-day activity of animals in their natural state. But when we consider the problem of the ways in which animals communicate with one another, I feel that to postulate instincts does not explain anything. Among other things, we are unable satisfactorily to account for migration, homing ability and the extraordinarily complex activities of certain insects. Any one who owns a terrier must wonder why he will fight with one strange dog without warning, and yet play with another which may be of the same age and sex. What impressions reach the sensorium of our terrier? How does it happen that thousands of starlings wheel about in an instant? I have watched thousands of birds, but have never witnessed a collision however swiftly they have turned or moved off when alarmed. Bats have an uncanny ability to find their way about and to avoid even such obstacles as fine cotton threads. It has been suggested that they gain knowledge of their environment by squeaking at a very high frequency and detecting solid objects by reflection of the sound. It is possible that there is a similar type of control in bird flocks, although the implications are of an almost overwhelming complexity.

It seems that some intercommunication between animals can be explained in terms of the special senses, but, at the present state of knowledge, this solution leaves unexplained many of the phenomena of behaviour and communication.

It will be appreciated that Comparative Physiology is a subject of vast scope. Its very definition shows this: it is the consideration of the functions of living systems among animals, and it involves the comparison of such data with the physiology of the human body. In a paper such as this it has been possible to touch on some aspects only of the significance of physiology to man. But I should like to point out here that there has been an immense amount of important material obtained from the heterogeneous Invertebrate Phylum. For instance, the detailed work on the chromosomes of the fruit-fly, Drosophilia Melanogaster, has been invaluable. Heredity and mutation are the means by which wide physiological tolerance and also specificity have arrived at their present state in animals. Such phenomena cannot fail to stir the interest of all who are stimulated by the questions "how" and "why."

To sum up. The study of the intact animal with some appreciation of its position in classification and of its physiological background can most certainly aid us to relate the facts we learn in the laboratory to the living world around us. It enables us to understand more fully that the problems of man's internal economy are not unique. The animal world is there not only for scientific experimentation, nor is it there merely to supply us with food. It is a contributor in many ways to our understanding and enjoyment of life. In fine it is a means whereby our horizon is widened and we gain a fuller appreciation of our own position in the scale of living things.

Sport

CRICKET

Guy's *v.* R.N.V.R.

At H.O P. Result—Won by 6 wickets.
25th June, 1950.
R.N.V.R. 103. Guy's 106-4.

Guy's

D. M. E. Allen, b. Connolly	5
N. R. Cooke, b. Feeny	0
D. M. Lipington, st. Pollok b. Feeny ..	5
K. W. Gray, c. Cane b. Connolly ..	3
H. Bissoon-Dath, not out	51
W. J. Howells, not out	42
H. R. Prentice did not bat	
C. Robinson ,,	
M. A. C. Lyon ,,	
W. Tweed ,,	
P. A. T. Martin ,,	
Total	106

Bowling : K. W. Gray, 14-7-16-4; H. Bissoon-Dath, 11-1-36-2; M. A. C. Lyon, 5-1-11-2; D. M. E. Allen, 6-2-6-1; N. R. Cooke, 6-1-16-1.

HOSPITALS CUP

SEMI-FINAL

Guy's *v.* St. Mary's

1st Replay
At H.O.P. Result—Draw.
16th July, 1950.
St. Mary's 249-6 dec. Guy's 145-7.

Guy's

D. E. Blake, c. Somper b. Howat ..	4
D. M. E. Allen c. and b. Garnham ..	39
P. S. B. Russell, b. Howat	1
A. F. Jones, l.b.w. Simmons .. .	2
W. Howells, c. Robertson b. Speight ..	13
D. M. Lipington, st. Reddy b. Speight	41
N. R. Cooke, l.b.w. Garnham	0
H. Bissoon-Dath, not out	25
M. A. C. Lyon, c. Robertson b. Speight	10
S. G. R. Earl, not out	0
W. Tweed, did not bat	
Extras	10
Total	145

Guy's 2nd XI *v.* Private Banks

At H.O.P. Result—Won.
15th July, 1950.
Private Banks 80. Guy's 81-2.
E. R. Gibbons 30. A. d'A. Fearn 21.
D. Harris 20.
Bowling : R. F. Hodson, 12-2-28-7.

GUY'S HOSPITAL RIFLE CLUB
UNITED HOSPITALS CHALLENGE CUP
1950

The Fifth post-war Bisley meeting saw more competitors than ever. Teams from Guy's, Barts, St. Mary's, St. Thomas' and two teams from the London Hospital taking part.

The conditions at 200x were good, despite a sharp shower at the end (which Guy's missed due to rapid shooting) and the team turned in a good shoot leading London and Barts by 2 points.

At 500x the team turned in only a moderate performance and here Barts led us altogether by 2 points. Towards the finish of the 500x shoot. there was a heavy shower, which, as at 200x the Guy's team missed, again due to their rapid shooting.

After a 90 minute interval, the teams commenced to shoot at 600x,with the light reasonable at first, getting worse every minute, as the sun grew more oblique to the targets. For the third time in the day our rapid shooting paid good dividends, the team putting up a good score in a remarkably short time, so short in fact that we had to wait for almost half an hour while the other teams finished, and before we knew we had beaten Barts by 12 points.

Results

Guy's 1st 489.
Barts 2nd 477.
London (A) 3rd. St. Mary's 4th. London (B) 5th. St. Thomas' 6th.

Individual Scores : D. J. Cliffe (Capt.), 89; C. P. B. Brook, 94; A. G. P. Jennings, 96; D. E. J. Thomas, 96; G. E. Tulford, 94.

C. Brook (*Hon. Sec.*)

Hospital Information, etc.

NOTICE

DEPARTMENT OF SURGERY

There will be no Surgical Exhibition or Clinico-Pathological Meeting during August.

There will be no Surgical Departmental Rounds in August.

APPOINTMENTS VACANT

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence duties on 1st October, 1950 :

Conservative Dental Surgery :

1 Registrar for 6 sessions per week—salary at the proportional rate of £775 per annum in the first year.

2 Registrars for 3 sessions each per week—salary at the proportional rate of £775 per annum in the first year.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1., to whom applications should be sent not later than Friday, **18th August, 1950.**

JUNIOR STAFF APPOINTMENTS
1950-51.

The following appointments and reappointments to the Junior Staff for the period commencing October 1st, 1950, have been made, subject to the approval of the Board of Governors :—

Whole-Time Appointments.

Assistant Clinical Pathologists.
Greenburgh, H. Willcox, D. R. C.

Children's Registrar.
Vulliamy, D. G.

Thoracic Registrar.
Hill, I. M.

Obstetric Registrar.
Evans. G. M.

Chief Assistant, Diagnostic Radiology.
Cole, W. R.

Registrar, Diagnostic Radiology.
Medhill, E. V.

Dermatological Registrar.
Morgan, J. K.

Part-Time Appointments.

Medical Officer, V.D. Department.
Williams, J. R. D.

Ophthalmic Registrar.
Shorten, D.

Throat and Ear Registrars.
Jenkins, J. T. M. C. Trethowan, J. D.

Dermatological Registrars.
Pegum, J. S. Montgomery, P. R.

JUNIOR DENTAL STAFF APPOINTMENTS.

1950-51.

Half-Time Registrars in Department of Preventive Dentistry.
Fooks, A. A. W. Pett, B. W.

Full-Time Assistant to Visiting Dental Surgeons.
Cross, E. S.

Administrative Dental Officer.
Matthews ,R. E.

Half-Time Assistants to Director of Conservation Room.
McLean, J. W. Robinson, A. D.
Robinson, A. A.

Part-Time Registrars in Conservation Room.
Griffith, D. M. Hart, R. J.
Hagger, C. I. Sunaway, K. S.
Hancock, J. G. Waller, D. F.

Half-Time Assistants in Department of Extractions and Minor Oral Surgery.
Cook, D. F. L. Donner, B. G. E.

Half-Time Assistants to Director of Dental Prosthetic Laboratories.
Elphicke, G. B. Morris, P. B.

Part-Time Registrars in Mechanics and Prosthetics.
Cain, R. D. Rand, A.
Malleson, M. Stileman, R. D. W.

Part-Time Registrars in Dental Department for Children.
Kettle, M. A. Richards, H.

Assistant Clinical Pathologist (Dental).
Shuttleworth, C. W. T.

The following Junior Staff Appointments in the Department of Psychological Medicine for the period commencing 1st October, 1950, have been made, subject to the approval of the Board of Governors :—

Whole-Time Appointments.

Assistant Director of York Clinic.
Crawford, J. P.

Registrar.
O'Mahony, P. F.

Part-Time Appointments.

Registrars.
Bockner, S. Hardenberg, H.E.W.
Clark, A. S. Whitteridge, S. M.
Haffner, C.

Chief Assistant.
O'Neill, D.

PASS LIST

CONJOINT BOARD

Final Examination
July, 1950.

Pathology

J. H. Bailey
J. A. C. Bamford
A. J. Bridge
A. C. Campbell
G. R. C. Deacon
*P. Dinmore
H. V. Hoyle
W. V. James
E. T. Johns
T. D. Kellaway
P. H. Kendall
H. C. Killey
W. H. McKendrick
H. N. St. John
M. Tun Shwe
K. A. E. Spence
R. V. Steward
D. J. Stoker
J. M. Stoner
I. B. Thomas
J. A. Thornton
F. H. Walker
A. V. Watts
H. Windschauer

Medicine

D. G. E. Alldridge
*P. Dinmore
J. F. A. Everson
G. C. A. Holden
J. M. Holden
W. V. James
P. H. Kendall
P. J. Koblenzer
K. E. MacLachlan
H. F. Pile
J. H. Ratcliffe
*P. W. Ruggles
*P. S. B. Russell
D. J. Stoker
F. H. Walker
A. V. Watts

Surgery

*B. H. Bass
J. W. Bradbeer
D. M. Devane
*P. Dinmore
*N. S. Galbraith
J. Hurst
J. V. Jeffs
*S. F. Knipe
*D. Lennie
*N. L. Rowe
*P. S. B. Russell
I. M. Sharpe
*R. I. J. Williams

Midwifery

D. B. Amos
J. W. Bradbeer
N. P. Bronsdon
M. J. Craft
*P. Dinmore
J. W. Draper
P. H. Gorodi
P. D. Harvey
J. M. Holden
G. L. Jones
G. M. Karpusheff
A. M. Kingon
J. N. Pachmayr
W. H. McKendrick
J. Palmer
H. F. Pile
J. R. Robinson
E. D. Sonnenfeld
K. A. E. Spence
A. G. Spooner
R. V. Steward
W. W. Thompson
J. A. Thornton
W. Vans Agnew
C. H. Wilkinson
R. A. J. Williams
P. A. Zorab

*have completed the examination.

CHANGES OF ADDRESS

W. D. Brinton, D.M., Neatham, Sleepers Hill, Winchester, Hants. Tel. Winchester 3758.

J. K. Martin, M.B., B.S., D.R.C.O.G., Winnipeg Clinic, St. Mary's & Vaughan Street, Winnipeg, Canada.

R. G. Walton, M.B., B.S., Division of Dermatology and Syphilology, Stanford University School of Medicine, Stanford University Hospitals, Clay and Webster Streets, San Francisco 15, Calif., U.S.A.

R. E. Irvine, M.R.C.P., 34 Lovelace Road, S.E.21. Tel. Gipsy Hill 1660.

BIRTHS

BODMAN.—On October 28th, 1949, in Edmonton, Canada, to Wing Cmdr. and Mrs. James Bodman (née Doreen Thornton)—a daughter, Jane Elizabeth.

MORRANT.—On 19th July, 1950, at Farnborough Hospital, to Molly, wife of Guy Morrant, B.D.S., D.D.S.—a daughter, Barbara Lois.

WALKER.—On August 3rd, 1950, at Guy's Hospital to Phyllis Walker, wife of Stewart Walker—a daughter, Julia.

WILLIAMS.—On June 22nd, 1950, at Guy's Hospital to Grace (née France), wife of D. M. Williams—a daughter, Diana Jane.

MARRIAGES

DOBSON-SMYTH — JENKINS.—On July 29th, 1950, at St. Mary's Church, Addington, W. E. Dobson Smyth, younger son of Dr. and Mrs. Dobson Smyth of Torquay to Miss Janet Jenkins, daughter of Mr. Jenkins and the late Mrs. Jenkins of Croydon.

FORBES—BURBERY.—On August 5th, 1950 at Newton Abbot, John Ronald Forbes, M.D., to Pamela Stone Burbery, S.R.N.

DEATHS

HUGHES.—On July 28th, 1950, at Pembury Hospital, Ernest Cranmer Hughes, O.B.E., M.Ch., F.R.C.S., of Grove Cottage, Tonbridge, Kent.

JENSEN.—On July 30th, 1950, suddenly, at 25 Berkeley Square, W.1., Ernest Thomas Jensen, M.B. (Lond.), M.R.C.S., L.R.C.P., aged 76 years.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1620 *26th August, 1950* *Ninepence*

PASSIM

TO make special issues of the *Gazette*, each devoted to a particular topic, has not been a regular practice. Some explanation may therefore be necessary on this occasion, when forensic medicine forms the principal feature. In the first place, of course, we owe both a debt and a tribute to our most distinguished contributors. Secondly, when the legal implications of medicine are so frequently neglected, any further attention drawn to the subject finds ample justification.

To the average student, forensic medicine constitutes but one part of an already extensive curriculum. Attendance at a course of systematic lectures is prescribed and the facing of an examination at the end is inescapable. If, for this one apparently specialised subject, last minute cramming affords a means to attainment, then this is readily undertaken without any further qualm.

The relationship between medicine and the law nevertheless exists, not only as an exercise fascinating in itself, but of such relevance to daily practice that its recognition deserves more than a passing nod and its acceptance as a prime function of civilised society can be denied only at peril.

What comes as a surprise is the realisation that, for all its antiquity, the history of medical jurisprudence is almost totally neglected. The standard works concerned with this speciality scarcely give its development so much as a passing reference, while even the most comprehensive historical tomes accord it no more than an occasional mention. Yet evidence exists that among the legal practices of the earliest civilisations the distinguishing characteristics of mortal wounds were recognised and appropriate investigations into cases of doubtful virginity were formally established. Roman law, exemplary and progenitive as it has proved itself in so many respects, was based largely on the authority of both the philosophers and the physicians. "Propter auctoritatem doctissimi Hippocratis." Indeed, the corpse of the noble Cæsar was actually examined by one Antistius, who gave, as his considered opinion, that, "out of the twenty-three wounds which had been received, but one was mortal, and that had penetrated the thorax between the first and second ribs."

Since, however, the structure of ancient medicine was speculative rather than scientific, the assistance which it could offer in any case of legal enquiry was no more logical than it was trustworthy. What is more, until the classical "Caroline Code" was drawn up by the Emperor Charles V of Germany in 1532, the medical profession as a body was under no obligation at all either to give evidence or to be examined on technical opinion in any instance where investigations were conducted into death by violent means. In fact, it was the publication of this very code which gave the initial stimulus to the growth of forensic medicine as a specialty in its own right, similar measures naturally following in the other countries throughout Europe.

Equipped with an ever-increasing knowledge of anatomy and surgery, aided by the successive edicts of the contemporary rulers and given practically unlimited scope in the shape of problems to be solved, numerous individuals, notably in Italy, laid the foundations of the new discipline of legal medicine at the beginning of the Seventeenth Century. Battista Codronchi, for example, studied the effect of poisons—*De morbis veneficis* (Venice 1595), Fortunato Fedele published his *De relationes medicorum* from Palermo in 1602, while Paolo Zacchia followed with his exhaustive *Quæstiones medico-legales* from Rome in 1635. Such, indeed, was the eminence to which Zacchia ascended that he was not only entrusted by Pope Innocent X with responsibility for public health throughout the Papal States, but his book was regarded as an unassailable text in practically every country of Europe.

After the Italians came the Germans. Bohn's *De renuntiatone vulnerum*, appearing in Leipzig in 1689, was the first scientific work devoted to the examination of mortal wounds. It contained, in addition, precise directions for the conduct of an autopsy. It was about this time, too, that Swammerdam discovered how the lungs of an infant would float on water once it had breathed, a test first applied by Schreyer in a trial for infanticide in 1682.

Among the figures of the Eighteenth Century was Antoine Louis of France. Besides concerning himself with the signs of death, protracted gestation, drowning and the distinctions between homicidal and suicidal hanging, he it was who proved himself responsible, along with Joseph Guillotin, for the devising of that fiendish machine of decapitation, the outstanding merits of which were attentively received by the French Academy in 1791. In England, Farr's *Elements of Medical Jurisprudence* (1788) was the first work of its kind, while in France again, Fodéré was the author of a most influential treatise, *Les Lois éclairées par les Sciences physiques, ou, Traité de Médecine légale et d'Hygiène publique*, which first came out in 1796, to be followed by a second edition in 1813.

The Nineteenth Century saw, for the first time, the widespread application of the methods of medical jurisprudence. G. G. Uttini (1741-1807), became the first Professor of Legal Medicine at Bologna, Lombrosa (1865) and his associates are credited with being the initiators of the use of scientific methods by the police, Tardieu (1818-79), of eponymous memory, was famed for his clarity and logic, Andrew Duncan, Junr., was the first Professor of Medical Jurisprudence in any British University—the chair being created at Edinburgh in 1806, and Christison and Newbiggin carried out the post-mortem examination prior to the Burke and Hare trial of 1827. So the whole subject gained in scope, erudition and application, more so it is said on the Continent of Europe than in the English speaking countries, where close co-operation between the medical schools and the legal authorities was lacking for so long. The Society of Apothecaries, at any rate, saw fit in the 1820's to impose by regulation attendance at a course of forensic medicine for all candidates intending to sit for their examinations and, from the very outset, the University of London in 1837 included this subject as an essential component of its M.B. syllabus.

Throughout this time Guy's had its famous exponents. Alfred Swayne Taylor (1806-80) Professor of Medical Jurisprudence at the Hospital for forty years was, during this period, a unique authority. After him came Sir Thomas Stevenson, Home Office Pathologist from 1877 to 1908, a figure whose analytical skill was matched only by his personality in the witness box. He it was whose genius for toxicology led to the conviction of Chapman (al. Klowsoski), who murdered three wives with antimony and contrived to get them all buried with certificates of natural causes ! Third in the line and happily still with us is the incomparable Dr. J. H. Ryffel.

Its wide implications notwithstanding, forensic medicine so often presents itself to the ordinary student as of merely academic or sensational interest. The teachers and demonstrators concerned have only themselves to blame. Such is their skill and so esoteric their behaviour that never for one moment do they admit of any dependance upon the simple efforts of the uninitiated practitioner. What is more, to the average man, being involved in crime or the handiwork of criminals is a most unlikely eventuality : the possibility, in

fact, is virtually disregarded. Yet to rise to an emergency, one must be suitably prepared. The majority of medical graduates discover, almost before the ink of their names has dried upon the statutory register, that they are confronted with one of those situations, the procedure for which was adequately described in that standard forensic text-book of which they disposed on passing the examination. In the meantime, however, not only the details but even the general principles of managing the problem have entirely escaped from memory. Simply to certify death is a test and anxiety on the first occasion. For all we have said, the sceptical student may well remain unconvinced—he will learn later, in the turmoil of active practice.

Apart altogether from medical jurisprudence, concerned with the " application of expert medical knowledge to the needs of law and justice," there are the " legal relations of the physician himself." Rules of professional behaviour were embodied in the Mesopotamian " code of Hammurabi " as long ago as 1900 B.C., while others have been disclosed in the surviving writings of the early Persian and Jewish epochs. The Hippocratic Oath, above all, has been a guiding discipline ever since its formulation at least as early as the Fourth Century B.C. Today the ethical conduct of the doctor becomes an ever more complicated problem, especially with the advancement of the so-called " social service state." Granted the B.M.A. has made a valuable gesture in the publication of its admirable pamphlet " Ethics and Members of the Medical Profession." To the recently qualified man this is a great help, but it is hardly enough. Surely the student should be given some introduction to this delicate subject even before he is unleashed into the field of medical practice.

One further legal, ethical or moral consideration has been left unmentioned, not merely in this Passim but, so far as we can see, elsewhere as well. This concerns the behaviour of the medical man as a privileged participant in relation to government—not *the* Government—of a democratic state. As a committee man or council member he is entrusted with otherwise unrevealed facts for confidential discussion. Numerous items of information gathered in this way might serve the individual—or, more especially, his friends—considerable advantage in the political world. To use them in this way or, for that matter, to divulge them at all is clearly a breach of faith and a surrender of integrity. Yet, over the past few years, with the return to party political strife and the increasing involvement of professional persons in affairs of government and control, instances have been all too numerous in which otherwise " honourable men " have prostituted themselves in this respect. Frequently, maybe, they are actually unaware of the crimes they are committing. But that is no excuse. For a truly democratic system to work very great demands are made upon the individual, in time, unselfishness and moral discipline. The professional man and, above all, the medical man, should be an unimpeachable example in this capacity.

Congratulations are offered to Sir Charles Symonds on the presentation to him by the Aero Medical Association of America of the Raymond F. Longacre Award for 1949. This recognition is given annually by the Association to the person who has contributed most to the neuropsychiatric aspects of aviation medicine, including the development of aptitude tests for flying.

James Edward Sutton recently retired after being for thirty years in the continuous service of the Hospital. Starting in 1920 as a porter he became, within four years, a special messenger with particular reference to the Superintendent's Office and to the Counting House as well. In this capacity he was entrusted with numerous responsible and confidential missions. Utterly reliable, always helpful and a model of quiet courtesy, he was known and respected by thousands of Guy's men. Our good wishes go to him for a long and happy retirement.

Three Medico-Legal Cases

By SIR SIDNEY SMITH, C.B.E., M.D., F.R.C.P.

Regius Professor of Forensic Medicine, University of Edinburgh.

A Lecture delivered at Guy's Hospital Medical School, on May 22nd, 1950.

LADIES AND GENTLEMEN.—When Dr. Keith Simpson asked me to give you a lecture I agreed to do so willingly and, as you are all senior students and know as much as I do or even as he does, I think the best plan in the limited time available will be to deal with one or two actual cases which will show you how the exercise of those same powers of observation that are so important in your clinical studies may be applied also in the particular field of forensic medicine.

In legal medicine and forensic science generally, we are like all other specialists, very dependent on the material provided for us by the "practitioner" No specialist is of any use at all unless he has suitable material submitted to him by the man on the spot. As a general practitioner is to the medical or surgical specialist, so are the police and detective services to us, and we depend largely on their training and ability to provide the material which enables the specialist to be of assistance in the investigation of a case.

Frequently the problem is one of reconstruction, and the material available varies greatly. An entire body may be found, or bits of a body or bodies, or perhaps only bits of bone, and we must deal with the material available in a logical sequence. Identification is of prime importance of course, and we must try to learn as much as possible about the person concerned. If only bones are available we must decide whether they belong to a human body, and whether more than one body is represented or not. The sex must be determined, the age, the stature and general conformation. If possible we must find out the victim's walk in life, and finally we may be able to determine his individual identity. We must try to decide what killed him, when it occurred, where it occurred—because bodies are very often moved from the place where death occurred, and if dismemberment has taken place then the fragments may be widely distributed. From our examination we may even be able to form an opinion as to the motive for the killing and as to the individual or type of individual responsible.

The investigation may take us along many highways and byways and it is obvious that one man cannot have enough knowledge to solve all the problems which may arise, and the medico-legal expert and forensic science expert may require to act as a clearing-house and to call in the assistance of specialists in every branch of medicine and science—pathology, histology, bacteriology, surgery, midwifery, chemistry, zoology, botany, geology.

The case I am going to discuss first illustrates this point very well. It was a relatively simple case.

There was a child of fourteen who lived in a tenement with her mother. In the ground floor flat below there lived a hairdresser named Donald and his wife. One day the child had her lunch of bread and meat and finished just before one o'clock, when she was sent to the Co-operative stores for a loaf of bread. She received the loaf of bread, and a receipt with a number on it. She walked back to the vicinity of her home, she was seen at the corner of the street a little before two o'clock, and then she disappeared and was never seen alive again. The mother was waiting for her, as she had to be back at school by two o'clock, and when the child did not return she became alarmed. There was a hue and cry and the search for the child was kept up all afternoon and evening. No sign of her was found until 5 o'clock the next morning.

Let us consider the house for a moment. To get at the back of the tenement there was a common yard. It had been raining and the place was very muddy, so that no one could have walked through the yard without getting mud on their feet. There was a common water-closet for the two houses on the ground floor. The person who lived in one of the bottom tenement flats had been engaged in the search in the afternoon and evening, and after returning home late, he went out to the water-closet at about half-past two in the morning. There was nothing to be seen in the passage then. He was out in the passage

again at four o'clock and was sure that there was still nothing there at that time, but at five in the morning, on making a further excursion into the passage, he found a sack outside the closet door and in the sack was the body of the child.

There was no sign of footprints, wet mud or anything else in the passage, and the sack was dry. The sack was examined and there were one or two points of significance about it. If a sack is carried on the back there are always wrinkles up towards the point where it is held ; there were no wrinkles in it—it looked as if it had been held over a person's arm. Inside the sack, feet sticking out, was the little girl. Her knickers had been taken off, there was vomited matter over her shoulder and in her nose ; and in the mouth, held between the teeth, was a cinder. Inside the sack was a handful of cinders, some household fluff, and signs of urine.

When the child was examined further there was to be seen a little bruising on the forehead, more signs of vomit, and at the bottom of the singlet there was blood staining. The combinations were torn across the leg and the blood staining had stopped short at the tear. The stains of urine on the other hand, which could be easily seen, passed right across the tear, showing two particular things—one, that the child had voided urine which thus stained her clothes ; and second, that the tearing of the garment and the blood staining, whatever caused it, had happened at a later time than the passing of the urine.

Examination of the child showed that there was some laceration just inside the vagina, which was dilated. The tearing inside the vagina had passed through the mucous membrane and vaginal wall and had perforated into the bowel. There was also dilatation of the anus.

The first suggestion was that this was a case of rape. When dealing with cases of rape all sorts of things may occur but there is one thing that we do not get and that is the penis penetrating through the vaginal wall. Nor does it cause scratches. This wrong idea, to begin with, that the child had been a victim of rape, rather fixed the attention on a sexual maniac and delayed the apprehension of the person responsible for some time.

Let us continue then with the examination of the body, the clothes having been removed. There was complete rigor, and the post-mortem hypostasis was found on the left side, and fixed, indicating that the child had been lying on the left side for sufficiently long for the blood and body fluids to coagulate, namely about six hours, and perhaps longer. Examination of the neck showed a number of bruises ; there were some bruises in the deeper tissues under the skin just under the jaw, and the larynx showed, besides bruising, the presence there and right down to the bronchial tubes of food material, obviously vomited and inhaled. After death there may be a certain amount of liquid food in the top of the larynx but it does not penetrate into the smaller bronchi unless it is inhaled during life. The condition of the lungs and other organs were indicative of death from acute asphyxia. Dissection of the pelvic parts permitted closer examination of the injuries inside the vagina, and of the rupture through to the back wall of the rectum.

The usual small boy gave evidence to the police that he had seen Helen being spoken to by a rough-looking man, and that she got into a motor car with him and drove off. The idea that the case was one of rape by a sexual maniac lost much valuable time, but the post-mortem examination clearly indicated that the cause of death was strangulation, and that the child had had something forced into its vagina, something of a pointed nature, which also penetrated into the rectum. It is always very important to note the nature and condition of the stomach contents, and the extent to which digestion has proceeded. In this case, the girl had had a meal at one o'clock, and the food was just beginning to fill the lacteals, so that the death might have taken place at about two o'clock.

The next thing to be decided was *where* she had been killed, and this is where the importance of observing everything comes in. I have described the tenement and its immediate environs ; the child was known to have gone towards it at between one and two ; she was found the next morning at five ; the sack was not there at half-past two in the morning so that it must have been deposited there between half-past two and five. Where could it have

come from ? If this story about someone taking her away was true, the body must have been carried over the front door step or through the back door. It could not have been the front door for it was highly improbable that the murderer would bring the body back through the street in a sack with its feet sticking out. He could not have gone through the back—there was no easy access, and in any case the back passage was dry, there was no sign of wet foot-marks. From the point of view of detection it was certain that the child had been killed in the tenement.

At that time, about two o'clock, when she was supposed to have been killed, all the people living in the tenement had a complete alibi. The only people about whom there was some suspicion were the Donalds. Mr. Donald was at work, their daughter was at school, and there was only Mrs. Donald left. She gave an alibi which proved to be false and both Mr. and Mrs. Donald were arrested. There was no other person who could have done it from the point of view of detection, but that is of no use in a court of law, so the next question was, was there anything to connect the child with the Donalds' house ?

There was the sack, the cinders, some hairs and fibres in the sack, some vomited matter, blood stains and urine stains. The fact that the post-mortem discoloration of the body was down one side gave an indication that the child had been pushed under a bed or into some other convenient hiding place and left there for at least some hours, and that she had been brought out again during the night. The sack was traced to have come from Canada with cereal ; it had gone to London ; it was traced from London to Glasgow ; Glasgow had sent the cereals to Aberdeen and there the contents had been disposed of and the sacks themselves all sold to potato and other merchants. We could not trace it after that, except that Mrs. Donald's brother worked on a farm which had some of these sacks and he was in the habit of fetching potatoes to her house. There were other sacks in her house which had several features in common, but no other sack of that particular nature.

The cinders too were examined, and it was obvious that they had been washed. In Scotland, some householders are in the habit of washing the cinders from the fire and using them again. The only person in the tenement who did this was Mrs. Donald. Apart from this, however, there was no particular feature about the Donald's cinders to distinguish them from anyone else's cinders. They were examined by expert coal people, sections were cut microscopically, but there was not enough to permit of a positive opinion regarding the source of the cinders.

Then there were the fibres in the sack. Fibres are very characteristic. If you take fluff from your house you will find that it is different from the fluff in any other house. In the fluff we found 200 different fibres and hairs—animal hairs, wool, cotton, etc.—and we matched them with some taken in different parts of the Donald's house. The results made it extremely difficult to avoid the conclusion that the fluff in the sack came from the Donald's house. In no other house was there anything approaching the same number of similarities.

The hair was examined, and we could match perfectly some hairs from the sack, hairs from the house, and some hairs from the head of the accused, but one cannot go very far on the fact that two hairs are alike. From any one of your heads we could take hairs which would look exactly comparable with hairs from any other head. But Mrs. Donald's hair had been artificially waved very badly. There are several methods of waving hair, most of them depend on the application of heat which changes the molecular condition of the hair. Very often the hair gets distorted, and flattened, and we found in the sack some hairs, flattened due to the waving. The hairs and the fibres from the sack were, therefore, all good evidence. In addition we thought it very likely that there would be blood stains and a blood-stained instrument somewhere. The house was gone over carefully and several blood stains were found, some of them were not from the child (she was Group O) but we found in three different places blood stains of the same group as the child. One group was on some washing cloths, and some were on some newspapers of the day that the child was killed. Mrs. Donald's group was not Group O, so that there were stains of the same group as the child's. We thought that since the child's

bowel had been injured the blood stains would be contaminated with organisms from the bowel, so we submitted the cloth to the bacteriologist. There are many varieties of B. coli, and the bacteriologist came to the conclusion that the type present in the cloth was in all respects similar to the organisms in the child's bowel, and quite dissimilar from the B. coli found on other things in the house. Moreover, the type was very uncommon. He went so far as to say that, if he was dealing, not with a case of murder, but with a question of clinical diagnosis, he would be quite positive on the subject.

In our reconstruction of the crime, we took into consideration the discovery at post-mortem examination that the child was suffering from an enlarged thymus gland, hypertrophied lymphoid tissue throughout the body, and other features characteristic of the condition referred to as status lymphaticus. Although we do not pay so much attention to status lymphaticus nowadays, as formerly, we do undoubtedly find that children with this condition may die suddenly if they are injured. We learned also that Mrs. Donald had a considerable animosity towards the child, and that the child was in the habit of rattling Mrs. Donald's wall or door as she passed towards her own house. We considered that some such incident had, on the day in question, induced Mrs. Donald to come suddenly out of her door, accost the child suddenly and perhaps shake her, or even grip her by the throat, whereupon the child collapsed. Under the impression that the child was already dead, Mrs. Donald pulled the child into the house, wondered what to do, and decided to fabricate a sexual assault. To this end she forced a rigid object, such as a hair brush handle or porridge strainer into the vagina, causing the pelvic injuries. That brought the child round—a neighbour spoke to hearing a child's shriek at or about two o'clock—the child vomited and inhaled the vomit and died from asphyxia, caused perhaps entirely by this, or perhaps aided by further pressure on the throat by Mrs. Donald in her frenzy. The child had passed urine at the time of her initial collapse ; the clothing was subsequently torn during the process of forcing the porridge stirrer into the vagina. The body was placed in the sack and was left under the bed, or under the sink till the early hours of the morning, when it was taken out and placed in the passage where it was found.

The case went to trial on the evidence I have indicated and in twenty minutes the jury returned a unanimous verdict of guilty. Mrs. Donald was sentenced to death, but the sentence was subsequently commuted to life imprisonment, presumably on the view that she had not formed a positive intention to kill the child. Afterwards the woman confessed to doing almost exactly what we thought had happened.

The next case is quite a different one. It relates to the death of a farmer who was a bad character. He got drunk every Saturday night, sometimes also during the week. His wife and a boy who worked on the farm were terrified of him. On a particular Saturday night he was drunk when the public houses were closed at 10 p.m. He took a bus to near where he lived and was heard singing as he went towards his house. Next morning about breakfast time his body was found lying in the grass just behind a bothy on the farm lands, with a shot gun beside him.

The boy's story was that he had come in and called out to the boy, " Sam, come and shoot pigeons." It was argued that he must have entered the house, taken out his gun to shoot pigeons and that an accident had occurred whereby he shot himself. It was accepted as an accident. When the body was examined —he was lying face downwards on the grass—there was found on the back of the coat a patch of blood-staining not associated with any injury. In that patch there were several white horse hairs. His cap was on the top of his head, the gun in front of his outstretched hand, and there was a little blood staining on the outside of his hand. Looking at his feet one found that his trousers were rucked up, the turn-ups had been turned down, the socks were rucked up. When the cap was taken off it was seen that there were injuries to his head, and in addition, there was a close range shot-gun wound of the face. When the body was turned over and the coat was pulled up from the back, the blood on the coat fitted under the head where the injuries were. Earth and some bits of vegetable matter were caught up under the ends of the braces at the back and under the buttons to which they were fastened. The shirt

was also rucked up. Clearly the man had been dragged by the feet on his back for quite a distance in order to produce these effects.

There were marks showing that he had also been dragged along on his face, so that the affair was obviously far more complicated than had been thought. There was also a shot-gun wound in his arm, and I have already mentioned, the injuries present on the head, which appeared to result from several severe blows struck with a fairly heavy instrument having an angular extremity. The wound in the face had obviously resulted from the discharge of a gun at very close quarters. Inside the wound, there were wads and powder and a collection of slugs. In the arm, some shot had penetrated through the arm and where they came out they were just beginning to spread. The shots had passed through the coat, and most significantly, through the tail of the shirt and not through the upper part of the shirt, which indicated that the shots had been fired after the shirt had been rucked up and after the coat had fallen down again, *i.e.*, *after* he had been dragged on his back.

During our examination of the locus, we found a trail of bloodstained vegetation extending between where the body was found and a wooden post situated near to the house. At a short distance from the post we found fragments of the shirt and the coat.

We were now in a position to reconstruct the course of events. It looks quite simple, but when I tell you that he had been examined and the affair dismissed as an accident you will appreciate that it was not so easy. We can all understand a drunken man falling about with a gun might easily get injuries, might easily shoot himself. But he could not drag himself, first on his back and then on his face. Our view was that somewhere in the vicinity of the house, the man had been hit several blows on the head. Probably the hits on the head stunned him and it was assumed when he fell down that he was dead. Then an attempt was made to fake an accident. He was dragged from the vicinity of the house, by the feet, whilst lying on his back, towards post. This rucked up his coat and stopped the blood getting on to the grass. There was an interval while the gun and ammunition were being got from the house. He must have partially recovered and sat up. We know that he must have sat up because in the patch of blood on the back of the coat there were some white horse hairs and all round the post there were white horse hairs. Only after that the coat fell down could the hairs have become attached. What probably happened after that was that the person who went to get the gun to fake the accident returned to find him sitting up. A shot was fired from a few yards range which went through the arm. Disappointed with this effort, the range was reduced to within a yard or so for the second shot which entered the face. That was the last wound, because blood was not inhaled into the trachea or the bronchus. The body was then dragged by the feet on its face to the position where found, leaving the trail of blood stained vegetation.

Assuming that this reconstruction was correct, we said that the charge from the first shot must be found somewhere within a circumscribed area of ground in the vicinity of the post. The police went out straightaway and from the area they collected practically the whole of the charge.

That was quite good, but there was also the question of time to be considered. He was not found till morning and his bladder was absolutely full. I will not weary you with the temperature of the body or the amount of rigor present, but all the signs tended to show that it was about two in the morning when he died. There was one other thing which might interest you. The amount of alcohol in the blood was roughly about 80 milligrams per 100 c.c. In a toper that would not have much effect, yet he was known to have been drunk when he arrived home after 10 p.m. so that he must have lived quite a time after that. His urine contained 240 milligrams per cent. Oxidisation takes place at the rate of about 10 grammes per hour, and the alcohol content of the blood had obviously been appreciably reduced by this process after 10 p.m. It also appeared that he had not emptied his bladder since leaving the public house, and from the urine alcohol content we could estimate what the blood alcohol content probably was when he left the public house. From the difference between these two, the blood and the urine, we could therefore reckon the time elapsing between 10 pm. and his death, and by this means also we were enabled

to put the time of death at about two o'clock in the morning. By successive stages we were able to build up precisely what happened to the man, the way he had been pulled about, the way it occurred, the place, and the time.

There were no finger prints on the gun at all, which was very suspicious. There should have been finger prints on the barrel. The boy later made a full statement, saying that the wife had arranged with him to "do old John in." They lay in wait for him and struck him over the head with an axe. He fell and was dragged to the place where we said he had been and there they shot him. The boy said that the wife had shot him, and after that the body was dragged into the field, the barrel was wiped clean and he was left there.

At the trial of the wife, the boy was the all-important witness. The trouble was that he was feeble-minded, and although his story coincided with our reconstruction it was not regarded as being sufficient to hang the wife. The boy might easily have done it himself because he knew all about it. The wife steadily maintained she did nothing at all and knew nothing at all. When I went to the house in the course of my investigations she was cutting up rhubarb to make jam, with her husband lying out in the field ; she did not seem greatly upset. The verdict was not guilty.

The next is a case of identification and reconstruction. A pelvis in the form of three separate bones was found. When the bones were put together they made one complete pelvis, so that we were dealing with one body. The bones were found in a well. We could spot the sex from the width of the angle and the size of the triangular shaped sacrum, and the square shape of the pubic bone, etc.—it was a female. Then there was the question of age. There is a rim round the crest of the ileum which unites with the body at 22-23 years of age, and from the condition present in the pelvis in question we could tell we were dealing with a woman of about 23 years of age. As regards stature, one could not estimate her height, but it was obvious she was of slight build, and from the pre-auricular sulcus it looked as if she had had a child. So that we were dealing with a young person of about 23, a girl who was probably married and who had had a child.

Looking at the two hip bones it could be seen that the bone on the right side was much heavier than the other, there was a difference in the angle which indicated that the weight of the body for a number of years had been borne mainly on the right leg and one could assume that this young woman had been suffering from some kind of disability which caused the left leg to be of little use, probably some type of infantile paralysis.

What about the cause of death ? A slug had passed through the crest of the ileum just near the anterior superior spine, so that there must have been the discharge of a shot-gun ; the shot had penetrated the abdomen in a direction from below upwards; a slug embedded in the ileum was home-made; and from the obvious fact of wide dispersion, the range must have been at least six or seven yards.

Looking more closely at the injury to the iliac crest, one could see distinct evidence of erosion which took 10 to 12 days to appear and one was justified in the assumption that she had had some peritonitis or some similar condition, had lived ten days and then died. A certain amount of adipocere had formed round the bone so we could tell that it all happened three months or more ago.

There was therefore a great deal of precise information to be gleaned from the bones—age almost exactly, sex a certainty, stature not quite sure, bodily deformity, the fact that she had been shot, the direction, the distance, the injury, the length of time she survived, and the cause of death, from the one bone. That knowledge in the hands of the police enabled them to make a rapid search and they learned of a girl who had disappeared about four months previously, and the father was questioned. He said he had been cleaning his gun outside the house, the girl had come to the door—she was married with one child—the gun accidentally went off and shot her in the abdomen, they were living alone, he took her in and nursed her for a week and she died. He was more terrified than ever and tried to cover it up by disposing of the body in the well. But the three bones were found from which a complete history of the case could be obtained.

Forensic Medicine in Egypt

By KEITH SIMPSON, M.D.

Reader in Forensic Medicine, University of London.

A note on a visit, March, 1950.

CAIRO'S colourful blend of East and West, of Arab and European, of Coptic, Greek, Cypriot and Muslim, of oriental wealth and appalling squalor and poverty, its cosmopolitan hotel and club population, its sneaking regard for hashish and harlot, polygamy and pederasty—the accommodating Nile and the torrid desert sand—provide a magnificent stage for crime. Forensic Medicine has always flourished in these natural surroundings, and from the 1920's when Sydney Smith started to mould the University Department of Forensic Medicine with his energy and hard commonsense, it has consistently held a place of its own on the subject. Cairo is the mecca of the medico-legal world, and a proper forensic education demands a visit to its School—and to Egypt in the Spring.

To leave London's stolid Metropolitan P.C. ruminating gloomily in a thick drizzle at dawn and to obey the shrill whistle of a Cairo cop in a taxi driven by a madman black as night the same evening, to see the Nile glistening with its forensic possibilities in a pale moon, and climb the soft carpeted Mena House stairs to bed, to awake to the mountainous pyramids glistening in a steady hot sun—this is literally to change personality in a day. From pathologist to peripatetic observer, Hackney to Heliopolis, cab to camel and marbled corpse to mummy. Where London's unending vista of chimneys rolled away to the horizon now stood the fertile green of the lush Nile Valley. Here was a field of enquiry pregnant with possibilities.

After a morning of contemplation under Cheops and the Sphinx, of conversation—and Persian tea—with the traditional dragoman in his village house, of brushing contact with the local police in their villa station, I lost no time in urging a taxi along the 8-kilo " straight " to Cairo for an afternoon's probe into the Faculty of Medicine. I met only silence, deserted sunlit corridors and padlocked doors, an occasional lab. man sipping Turkish coffee in a corner. No one had thought to warn me that only " mad dogs and Englishmen go out in the mid-day sun," that Egypt's experts drift away at 1 p.m. to relax in the warmth of the day. I was quite unreasonable to expect a turmoil of work after 1 p.m. I went out and bought a hat, walked with a funeral, contemplated the Nile and strolled into the Anglo-American Hospital for tea with the popular matron, Miss Shackshaft.

By 6.30 p.m. it is dusk and by 7 the incredible hubbub of Cairo narrows to a few all-night streets and a liquid black blots out the rest. No coal, gas or electric contact to menace the poorer Egyptian—only the kerosene lamp in their mud-brick homes and overcrowded flats, asleep in happy symbiosis with the goat and the camel. England's lovely summer evenings are lost to the Egyptian ; hardly has the heat of the day gone than it is dark and time to drink to the morrow. But not, as I found, at the appointed hour. " A drink about 7.30 " can be relied on to warm up between 8.30 and 10, and " dinner about 8 " is an uncertain starter until about 10 or even 11 p.m. I brought the house down by confessing I had been restive with a taxi-driver over a lunch appointment at Shepheards ; it was getting late as we covered the last half mile and I was changing seats, opening and shutting windows, exchanging *Vite* and *Allez donc* with the driver—only to find that I was only 5 minutes late where my guest was 15. Sydney Smith, who happened to be " avec " pointed a paternal finger at me shouting with laughter at the man who wanted to be punctual in Cairo !

So many Guy's men and women have sampled the delights of Egypt in war or peace, its tranquil warmth and cheerful procrastination, its calm acceptance of time, the chaotic bustle of Cairo with its cosmopolitan Shepheards or Semiramis, Mousky, Turf Club " gimlets " or the famous " suffering bastard " the treasures of Saqquara, and the incredible riches of Tutankhamen, the lush Nile Valley and Luxor, that I shall confine myself to some remarks on the practice of forensic medicine and a glance at the foibles of a great capital city.

The Forensic Field.

Cairo's population of nearly 2½ millions embraces a few fabulously rich, some thousands of well-to-do, and nearly two million of fellaheen living in squalid poverty, underfed, badly housed, overcrowded—but happy. Large English, French, Greek and Cypriot colonies mix with Egyptian Coptic or Moslem, with Arab and Turk, and the dark skins of the Sudan with their tribal scars are as likely as not to be at the wheel of the taxi. Racial feelings cannot run high in such a cosmopolitan circle, but drugs and degradation, love, jealousy and hatred, cupidity and the thieving which follows—and of course Egypt's particular menaces to a full expectation of life—the tram, the taxi and the camel's bite—all provide a broad field of forensic study in addition to the gamut of disease that any large capital city must disclose.

3,000 dead from unexplained, accidental or suspicious causes (as compared with London's 8,000 p.a.) come each year to the Government's public mortuary attached to the Medico-Legal Institute for autopsy by some four pathologists backed by nearly forty technical staff—providing the scientific laboratory background to secure medico-legal investigation. Reports are made to local prosecutors who enquire in private, taking evidence where necessary to reach a verdict or adjourning for criminal proceedings—much as is the practice in Scotland, where Procurator Fiscal is counterpart to the English Coroner.

Accidents cover, in their domestic range and on the streets, much the same field as anywhere in the world, except that burns in children come high on the list owing to the general use among the poor of primus type or other kerosene lamps for both cooking and lighting; kerosene is the only rationed fuel. And the absence of the "heavy industries" and of docks and intricate rail systems reduces such accidents to a scanty few.

Crimes of violence, too, show the same flames of rage, bitter hatred or smouldering design, the same lack of cunning or intelligent planning as they do the world over. Men will ever strangle their amours, bash their wives' heads in or fight with their local weapons—here a wonderful variety of knives, sticks (naboots) and guns. The waters of the Nile, warm and infested, provide a ready ally to concealment, setting up decomposition within 6 or 8 hours and, in hotter times, providing insuperable discolouration and putrefaction within 24 to 36 hours. The dictum that the commonest suicide is to drown one of your wives in the Nile has no small point. And if not the Nile, why not the desert? There, in 10 days to a fortnight a child will mummify beyond repair (except for bony injury) or lie in the dust for carrion to dissect. I remember vividly a story the late Professor C. S. Gibson used to tell against himself when he was head of the Department of Chemistry at Cairo: how he put some particularly offensively smelling organs for analysis out on the roof whilst he prepared reagents for test, only to find the carrion had had them when he returned an hour later—and with the Government Prosecutor awaiting his findings in preparation for a charge of murder. Gibson remained at Cairo.

The problem of child murder in a people so fecund as the Egyptian poor is a common one and is still classed as murder without the special leniencies that the English law on infanticide offer the mother—though I gathered that the humanity of Egyptian law officers for women in such an age old predicament often resulted in charges of child murder ending in much the same way as they do in England. Viability is taken to be acquired in law at the sixth month (instead of the seventh, as in England) and the law takes the evidence of two witnesses (in corroboration of each other) or medical findings in proof of a separate existence: this, as in England, is for the Prosecution to prove. Barcroft's work on fœtal respiration has, happily, not yet penetrated to the Egyptian criminal courts to perplex the pathologist.

Where the disintegration of bodies is so rapid the study of reconstruction is naturally a particularly fascinating one, and the Forensic Museum of the Faculty of Medicine at the old Kasr el Einy Hospital (where Miss MacManus had in the past been on the staff with her usual distinction) reflects this aspect of the subject well: the task of identification is taken seriously and plainly disposed of well. It offers no new problems of particular local interest

except for the recognition of racial and religious scars and tattoos—and for the tantalising frustration of dental data made useless for identification purposes owing to the lack of dental attentions and records. The system of photographic record and of identification by finger print in the Medico-Legal Institute—the Scotland Yard of Cairo—is precisely the same as elsewhere. Bertillon, as elsewhere also, is dead.

Sex is commonly safeguarded, as in England, though the age of consent is raised to 18. To appear older is a valid excuse (as for the under twenty-fours in England, first time) since, it was remarked, the youth " is not expected to ask for the birth certificate before doing the act." The bufo arenarum is the popular pregnancy test. Egypt's law courts have had enough courage to set a reasonable limit to gestation which English courts appear so loth to do—six months to one year. Homosexuality and bestiality offer no particular colour, though the proximity of the goat with whom the fellaheen may live in such happy symbiosis is a menace : the goat's views of the arrangement is unknown.

Drugs in Particular.

The drugs of addiction—morphine (opium or heroin), alcohol, barbiturates and hashish, for those who can afford them, are not a source of any appreciable mortality, only a disturbing morbidity. Cocaine is a drug, the peddling of which is difficult to assess as in London, but which clearly has more figurative interest than actual. Hashish (cannabis sativa, marihuana), though common, is still the least well understood. It grows easily in the lush irrigated soil and the flowering tops compress into a resinous mass with a curious smell which can be incorporated into tobacco as cigarettes, chewed as " hubble bubble " (goza), slipped into the rich Turkish coffee dregs as a capsule or pill or sandwiched as a paste, melted in oil, mixed with nutmeg, sugar, honey and spice (manzool). Though productive of a happy ethereal narcosis and credited with a traditional lengthening of coitus, it is no real danger to life.

Hyoscyamus (muticus, niger), which grows wild at Aswan and Edfou in Upper Egypt, and datura (stramonium, metel) are far more common in the Middle East, the latter seeds being in use for both homicide and to facilitate robbery, given in the attractive " vehicle " of dates, figs or in the coffee.

The Egyptian Law has done what it can by statutory relations to restrict the sale of these drugs and to prohibit the unlicensed culture of narcotics, but meets with precisely the same difficulties as in England—deliberate evasion by peddling, stealing, and the profligate prescription of barbiturates and heroin.

Forensics for the Student.

How does the medical student fare in his forensic studies ? The stupendous annual entry of 500-550 restricts his chances of practical experience, but his peculiar aptitude for book and lecture learning make some amends for this. Large classes in the hands of as popular and respected a chief as Professor M. Emara Bey (the suffix is a civil title), the head of the Department of Forensic Medicine, are manageable ; the temper of the Egyptian scholar is not always equable, and he takes failure at examination bitterly.

As many as 300-400 men and women may have a right to attend a single autopsy, though 60-70 find that they constitute a practical maximum. Forensic and toxicological teaching, lectures and practicals, are far more detailed than in the London Schools, and would equip the student on paper for actual practice in the speciality, whereas English University training is content to leave him versed in his everyday relations with the law as a practising doctor, to the recognition and treatment of clinical and industrial poisoning, and to acquaintance with a code of medical ethics, ignorance of which may be dangerous.

At the Kasr el Einy School of Medicine the student is some distance removed from the Government Public Mortuary where medico-legal autopsies are made : the Police Cadet may see more of this important aspect of forensic practice than the prospective practitioner. The administrations are separate, as they are in London, but the practice of allowing forensic autopsies to be

made in the great teaching hospitals by the University teachers of the subject, which London Coroners have cultivated to such mutual advantage, does not exist. The Head of the academic Department of Forensic Medicine does what he can to bring back " trophies," but a vast turnover of interesting material is lost to him and his students.

Teaching is in excellent English : how insular the English are to expect it to be so. I have vivid memories of Meulengracht in Copenhagen, on my first study travel 20 years ago, introducing me with courtesy to a class and concluding with " and, of course, gentlemen, we shall speak English this morning." And so it is everywhere. How many of us can do more than make usual conversation even in French or German with our visitors : what of the Swedes, Turks, Czechs and Chileans we receive ? Of course the world literature in medicine in English vastly exceeds any other, and the advantage of recourse to it is a natural urge to make English a useful second language. With typical English reserve I counted myself active in learning Arabic as far as the stupendous figure of ten, though I doubted its ultimate use to me.

Factual teaching and note-taking is, on the whole, more in evidence than our own teaching of principles of learning : the student is left less to his initiative and has less need to indulge in evaluation and deduction—which, in forensic medicine, are of particular significance. No doubt there will always be adherents to both. There can, nevertheless, be no doubting the remarkable facility with which the Egyptian student can absorb and retain factual knowledge : his capacity in this respect is prodigious.

Medical Police.

The technical backing afforded to the pathologist investigating suspicious deaths is substantial—though it is clear that police help in circumstances which, though suspicious, are not plainly criminal is not so readily secured as in England. Here one only has to raise doubts at autopsy and the whole weight of the local C.I.D.—with the backing of senior officers linking with the Yard or a provincial Home Office Science Laboratory—is at once sprung into action. Indeed, the local C.I.D. are likely to arrive at the mortuary before autopsy is completed. Nothing is stinted until a satisfactory conclusion has been attained. In Egypt it is less certain that the important aid will materialise. The " plain clothes " will not turn out on the medical findings unless there is a very strong smell of crime.

The Egyptian Government's Medico-Legal Institute—the " Scotland Yard " in Cairo—is a highly organised and remarkably well equipped scientific department with some 40 clinical experts housed in their own laboratories around an administrative C.I.D. " brain," the Director, M. Samy. My visit, though deliberately intended to see the Institute working a routine day, proved to be " full dress." M. Samy only had to reach arm's length from his desk to lay hands on an example of superimposed photography for reconstruction of identity and his technical departments positively hummed with a remarkable activity. Each laboratory had something really good at the crux of interest—a biological strychnine assay with a frog galvanised by the tap of a 5-piastre coin on the bench, crystals of arsenious oxide just formed from a Marsh-Berzeline sublimate, a local toad obliging with a pregnancy test, and electro-encephalogram on a wild youth (with the Director General, Professor of Forensic Medicine, Deputy Director, three crime doctors and myself to intensify the discharges), hashish revealed by Beam's test from a suspect grower in the Nile beds, fibres from a sex maniac's trouser with sperm intact, infra-red photography of the corrected betting slip and forged kerosene coupon, emission spectrometer clues to road accident paint traces ; the whole Department was a whirl of activity with expensive equipment packed so tightly one had literally to pick one's way with care in some departments. The library contained the high spot in courtesy—a young police cadet busy reading—well, well—a copy of my own small text book. I left with a reproduction of the hashish pipe in delightful glass blown on the premises to mark a happy occasion—illustrating the trouble a Government Department can take to make one's visit informative and colourful.

A Note on the Investigation of Sudden Death*

By F. S. FIDDES, O.B.E., M.D.

Lecturer in Forensic Medicine, University of Edinburgh.

COMPARISONS are not always odious : often they are most interesting and instructive, and this is certainly true of any comparisons which may be made between the legal systems which apply respectively to England and Scotland. In each case their structure stands on a firm and impressive basis of individual history and tradition ; but this is not the place to discuss these basic differences, except perhaps to remark on one odd distinction, namely, that in Scotland, where there was no Roman conquest, there is a much stronger strain of Roman law than in England, which enjoyed the benefits of Roman occupation for several centuries.

So far as medical men are concerned, the most interesting structural difference is to be found in the framework within which the legal investigation is carried out in cases of sudden, unexplained or violent death. The underlying argument is the same in all civilised countries, namely that there must be a legal inquiry into all such deaths since they may be the consequence of unlawful conduct or of some circumstances which cannot be overlooked without endangering the security of a " properly organised state of society." In both cases, the medical witness plays an important part, but the mode of enquiry illustrates the differences which exist between English and Scots procedure.

The Coroner.

In England, the central figure is the Coroner. The office is an ancient one indeed, the origins of which are lost in the mists of antiquity. The modern Coroner is appointed to an area by the County Council or corresponding local authority and his main responsibility is that of conducting an enquiry upon " the dead body of a person lying within his jurisdiction " in which " there is reasonable cause to suspect that such person has died either a violent or an unatural death, or has died a sudden death of which the cause is unknown." The knowledge requisite for such an enquiry is assured by restricting the appointment to barristers, solicitors or medical practitioners of not less than five years standing.

Information on a dead body may reach the Coroner, directly or through his officer, from the police, from a medical practitioner or from the Registrar of the district. The Coroner's Officer thereupon prepares a report on all the circumstances and available evidence and on the information thus obtained, the Coroner bases his decision to hold, or dispense with, an Inquest. He may call for an amplified medical report on the case, or direct that a full post-mortem examination or other special enquiry or analysis be made. Once a death has been reported to the Coroner, no autopsy may be made without his express authority. He authorises the disposal of the body and issues necessary Certificates.

A Coroner's decision to hold an inquest should have reasonable grounds. In certain circumstances he is statutorily bound to do so, namely if there is a reason to suspect :—

(a) that the deceased came to his death by murder, manslaughter or infanticide ; or

(b) that the death occurred in prison or in such circumstances as to require an inquest under any Act other than the Coroner's Act, 1887 ; or

(c) that the death was caused, by accident, poisoning or disease, notice of which is required to be given to any Government Department under any Act : or

(d) that the death was caused by an accident from a vehicle in a street or public highway ; or

(e) that the death occurred in circumstances the continuance or possible recurrence or which is prejudical to the health or safety of the public.

**Based on a discussion at autopsy, Guy's Hospital, Nov. 28th, 1949.*

The Coroner's Inquest is a public inquiry in open court—the Coroner's Court—which may be held either in a formal courthouse, or in any improvised premises, The Coroner sits with a jury, except in certain circumstances, and before the inquest the Coroner must view the body, but it is not obligatory for the jury to do so. The Inquest is in no sense a trial and the evidence, though given on oath, is not subject to the same strict rules of admissibility as in a criminal court. An opinion is formed as to the cause and circumstances of the death, and this becomes the " Verdict " of the Coroner's Court. In cases which involve subsequent criminal proceedings, the signed depositions of witnesses and all revelant documents are made available to the prosecuting authority.

The Procurator Fiscal.

In Scotland, there is no officer whose position is strictly comparable in all respects with that of the Coroner. The Procurator Fiscal, who is often regarded as the Scottish equivalent, occupies a different position, but as his duties *include* the investigation of sudden, unexplained or unnatural deaths, it is possible to make some comparison within these limits.

The senior legal representative of the Crown in Scotland is the Lord Advocate, who through his Advocates Depute, conducts the prosecution in all cases of serious crime. It is proper to refer to a case, not as Rex v. John Smith, as in England, but as H.M. Advocate v. John Smith. The Lord Advocate (or the Crown Office) also appoints for each administrative area a Procurator Fiscal, who may have one or more Deputes; appointment to the service requires a full legal training, though in rural areas the work may be allocated, on a part-time basis, to a local practising solicitor.

The Fiscal is responsible for collecting and preparing the evidence relating to crime which cannot be disposed of summarily in the local Police or Burgh Courts. In cases which can be tried in the Sheriff Court, he leads the evidence as prosecutor for the Crown. In cases of a more serious nature, appropriate for the High Court of Justiciary (equivilent to the Court of Assize) he submits the prepared evidence, largely in the form of the " precognitions " which he has taken from witnesses, to the Lord Advocate's Department, where further procedure is decided. This illustrates the wider nature of the Procurator Fiscal's responsibilities as compared with those of the Coroner.

Intimation of any sudden death is made to the Procurator Fiscal either directly or through the Police. The Fiscal directs officers of the Criminal Investigation Department, specially assigned for work of this nature, to make inquiries, which are directed along lines similar to those pursued by the Coroner's Officer in England. At the same time, the Police Surgeon is required to examine the body externally and make whatever other personal enquiries he may consider helpful in forming an opinion as to the cause of death. The Procurator Fiscal considers all the evidence thus made available and may personally interview the persons concerned. If he is satisfied as to the cause of death, and that there are no factors demanding further procedure, he may authorise the issue of a death certificate and so dispose of the case. If the Surgeon is not prepared to state a cause of death or if the Procurator Fiscal himself is not fully satisfied, he may ask the authority of the Sheriff for a full post-mortem examination.

Post-Mortem Examination.

If the death appears to be criminal or if there are other suspicious circumstances the Sheriff's authority is immediately obtained for a post-mortem examination by two medical men nominated by the Procurator Fiscal. A post-mortem report is submitted to the Fiscal on which the doctors concerned are then " precognosed." The report is made " on Soul and Conscience," a requirement which gives it a status equivalent to a statement made on oath. The report and precognitions, with all the evidence in the case are sent to the Lord Advocate, and form the basis of the evidence which will be given at trial. The conjoining of the two medical men is noteworthy; it is based on the Scottish requirement of corroboration in such matters.

It will be observed that the Procurator Fiscal's inquiry is essentially private in character. There is no hearing of evidence in open court; everything is done by means of personal interview, interrogation and examination. Even in cases of murder or culpable homicide (the Scots equivalent of manslaughter) the evidence remains unknown to the public until it is led in the High Court with the accused person actually on trial.

Public Enquiry.

Public enquiries are not, however, unknown in Scotland. Under the Fatal Accidents Enquiry Act, 1895, a public enquiry must be held in all cases of fatal accidents arising in the course of employment. Moreover, the fatal Accidents and Sudden Death Enquiry Act, 1906, provides that: "In every case of sudden death in Scotland, the Lord Advocate may, whenever it appears to him to be expedient in the public interest, direct that a public inquiry into such death and the circumstances thereof shall be held." The Procurator Fiscal leads the evidence of the witnesses in such cases before a Court of Inquiry presided over by the Sheriff, sitting with a jury, who are required to return a verdict. In these circumstances, therefore, the procedure becomes very comparable to that of the Coroner's Court.

The privacy which is a feature of the Scots procedure is one of its most desirable features. Whenever possible the victim of a sudden bereavement should be spared the additional strain of a public inquiry. Amendments to the Coroner's Act have reduced this distinction between England and Scotland, though the Procurator Fiscal still exercises considerably greater discretion than is permitted to the Coroner. The provisions made for public enquiry in Scotland whenever it appears expedient in the public interest are an important safeguard. In favour of the English system it can be argued that the publicity of the Coroner's inquiry tends to ensure thoroughness and is in closer accord with the old maxim that it is important, not only that justice should be done, but that it should be seen to be done. No doubt, too, it is often effective in stopping the mouths of rumour-mongers and in permitting reasonable ventilation. In other cases however, especially where criminal proceedings are to follow, the disadvantages of prior publicity are plain.

ACADEMIC

September		Exhibition. Surgical Department. "The Surgery of the Liver."
5th.	1.00.	Mr. Atkins. Clinical Lecture.
8th.	1.00.	Dr. Douthwaite. Clinical Lecture.
9th.	10.00.	Professor Charles Rob, St. Mary's Hospital. Surgical Departmental Round. Clinical Theatre.

Sailing Club—Ogilvie Cup

In complete contrast to last year's fluky, windless conditions, there was a fresh S.W. breeze at Burnham for this year's Ogilvie Cup Race. Due to the fact that there were eight entrants, it was decided to run two heats and a final. After the first heat, in which Alan Blower—last year's winner—and T. P. Bass qualified for the final, it was decided to run the second heat and final together, as time was getting short. In the Final, Ronald Harper made a fine start, and nobody came near enough to challenge him all the way round. D. B. Longmore was second and R. Rees, third.

Reviews

Combined Textbook of Obstetrics and Gynæcology for Students and Medical Practitioners. Edited by DUGALD BAIRD. 5th Edition. Livingstone. *Price* 70*s.*

Professor Baird, his contributors and publishers have produced a magnificent book, worthy of the eminent and well-known names found on the title page. It is of enormous size, beautifully and profusely illustrated, written in (good) English with conspicuously few misprints. Here is a veritable encyclopædia.

So much of it is good that it is difficult to select a particular section for favourable comment. There is little to criticise. In places, particularly where endocrinology is concerned, the authors appear hesitant and unduly uncritical. There is a little too much stress on the dangers of vaginal examination in labour, and I personally got very weary of the ubiquitous references to social class and income groups, which might well have been collected together in one chapter (printed in red if so desired) and thereafter left alone. The treatment of eclampsia errs perhaps a little on the vigorous side. The recommendations for antenatal care and clinics show a somewhat unrestricted striving after an unobtainable utopia. But none the less, it is a very fine volume indeed, and the sections on the forces in labour, the bony pelvis and mechanisms in labour, and breech delivery are magnificent.

H.A.R.

Fœtal and Neo-Natal Death. E. L. POTTER and F. L. ADAIR. University of Chicago. *Price* 30*s.*

This book is a very adequate introduction to a subject, the study of which is becoming increasingly important on present-day obstetrics. It is written essentially for the post-graduate student intending to take a higher examination in obstetrics and for the pathologist investigating fœtal and neo-natal death. There are five sections concerning the normal fœtus, the technique of fœtal post-mortem examination, the causes of fœtal death, the pathology of each organ in turn, and statistical data pertaining to maternal and fœtal death in America. Post-maturity as a cause of fœtal death is not mentioned. Although short and therefore inclined to be dogmatic, this book is recommended to anyone commencing a study of the problem.

T.L.T.L.

A Textbook of Venereal Diseases. R. R. WILLCOX. Heinmann. *Price* 32*s.* 6*d.*

This book is designed to cover the requirements of practitioners engaged in venereological work overseas as well as those working in the United Kingdom.

For this reason thirty pages of four hundred are given up to brief though interesting accounts of tropical conditions such as Yaws, Bejel and other afflictions not seen in this country.

A good account of syphilis in its various stages is given and the methods of treatment described are sound.

Gonorrhoea and its complications are adequately covered.

The question of the non-specific venereal conditions in both male and female patients is discussed.

In general the book is well laid out and is readable.

R.W.

Rheumatism. By H. WARREN CROWE. Second Edition. Staples Press. *Price* 17*s.* 6*d.*

This book describes the methods of diagnosis and treatment of the rheumatic diseases which are used at the Charterhouse Rheumatism Clinic. At this institution vaccine treatment is still regarded as the chief method of therapy for the rheumatic diseases and a large part of the book is taken up with descriptions of this technique and its results.

Since it cannot now be accepted that vaccines have any place in the treatment of rheumatic diseases this book cannot be recommended to the general medical reader, less still to the student. It may serve as a target for a polemical expert in this field, but it is likely that its only readers in a few years' time will be students of the history of medicine.

Ernest Cranmer Hughes

The Memorial Service to the late Ernest Cranmer Hughes was held in the Hospital Chapel on Friday, 11th August. A very large number of people were present to pay worthy tribute to a great man. Included among them were his own son, daughter and son-in-law, numerous professional associates, and Dr. Charles Cameron to whom we are especially indebted for permission to publish this address which he delivered on the occasion.

"WE meet today to commemorate one who may truly be said to have devoted his life to his hospital. For outside the unclouded happiness which was always his in his family life, Hughes's interests and occupation were always centred with us here at Guy's, beginning from the day when, like his father before him and his son after him, he entered as a student, and continuing to the very end almost fifty years later.

Ernest Cranmer Hughes was born in 1878 at Plymouth, where his father practised. He went, like his brothers, to school at Marlborough and afterwards he passed to Clare, Cambridge. It was in 1901 that he came to Guy's and at once made his mark. I remember that in the eyes of that very formidable master of surgery, W. H. Jacobson, he found immediate and peculiar favour. The rest of us, as a rule, were terror stricken in Jacobson's presence, but Hughes from the first was a very privileged person. He had the good fortune too to be chosen as House Surgeon to Arbuthnot Lane and he turned that great experience to good account. Soon after he had ceased to be House Surgeon for various reasons it had been thought necessary to institute a new surgical appointment—Resident Surgical Officer. The number of grave emergency operations had been rapidly increasing, just at the time when changing conditions had led most of the Assistant Surgeons to give up living in St. Thomas' St. and to move to the West End. Hughes was, I think, the second to hold a post which was not unnaturally very unpopular with the House Surgeons whose responsibilities and opportunities it diminished. He did so well in a difficult situation that no one was surprised when in 1911 he was appointed Assistant Surgeon. He became full Surgeon in 1932.

It is not easy to express in words the part which he played for so long in our common life at the Hospital or to describe all those endearing qualities which won for him so much affection. He was not like Hurst, full of enthusiasm and of plans for extension and reform. He was not like Beddard, a witty and caustic critic of whatever he found ineffective. He did not, like Eason, hold high office and play a great part in affairs outside these walls. Rather he seemed to slip unconsciously into the role which that much loved character John Dunn had played for an earlier generation, the rôle of the friend, the confident and the advisor of the students as well as their devoted teacher. There were many years when there must have been very few students who were not personally known to Hughes and whose qualities he had not shrewdly appraised. Like John Dunn too he was always known among us by a name of our own devising. Dunn's christian name was something very different from John and no one at Guy's, that I know of, ever called Hughes Ernest.

Hughes was a neat and deft operator. I early learned to appreciate the good results which he seemed invariably to be able to achieve in the case of very young children. And his gentleness and tenderness of touch were not confined to the operating theatre. It was apparent too, in all his handling and his approach to children, as well as in his consideration for the too great fears of an anxious mother. I have no doubt that Hughes was the ideal Surgeon for a Childrens' Department.

Hughes loved and excelled in all his surgical work, yet I think it is true to say that his teaching, his students and his association with them meant even more to him. When in later years the strain of operating began to be felt and he was forced to restrict the work he undertook, his love of teaching remained undiminished and he continued it almost to the last. Of his success as a teacher generations of Guy's men can testify.

Hughes to me personally, was a very dear friend. As young men we lived together in the little house near the hospital gates, 6 St. Thomas' Street, and when this last war summoned us all to Pembury, he took me into his house

there and made it a home for me. To be with him was always a refreshment and a soothing experience. One could rest with Hughes. Even the jokes we shared in common were old and well seasoned, but we enjoyed recalling them year after year. I suppose that like others he had his times of weariness and unrest, yet he never showed them to me. One felt that his work was enough for his happiness, work meticulously prepared for and punctually carried out, and that he asked for little else from life. In those last days, one anxiety I think he had. He looked forward with forboding to the time when all his work would be done and nothing would be left for him but inaction and that he felt would be hard to endure. He was not to be called upon to endure it.

I have been very brief, he would not have wanted me to say much, but I think he would have been glad to learn, what I think he never knew, how many men and women here at Guy's, over these fifty years, not only valued him highly but loved him devotedly."

House Appointments

1st SEPTEMBER, 1950

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger : Mr. K. W. Gray
„ Mr. Wass : Mr. J. H. Wilson.
„ Mr. Blackburn : Mr. J. Taylor.
„ Mr. Lawrie : Mr. D. R. Pugh.
„ Mr. Glover : Mr. P. L. Williams.

Appointed for six months, the first three months as Assistant House Surgeon.

OUT-PATIENT OFFICERS.

Mr. H. M. Baird
Mr. A. G. Blyth
Mr. W. H. Watson
Mr. W. N. Whamond
} 3 *months.*

HOUSE SURGEONS.

To Sir Heneage Ogilvie : Mr. J. A. Loeb. 3 *months.*
„ Mr. Massie : Mr. R. G. Beard. 6 *months.*
„ Mr. Eckhoff : Mr. M. C. Gilbert. 3 *months.*
„ Mr. Atkins : Mr. F. G. Ellis. 3 *months.*

HOUSE PHYSICIANS.

To Sir John Conybeare and Dr. Hardwick : Mr. A. W. Cook* Mr. K. F. Robinson. 6 *months.*
„ Dr. Boland and Dr. Baker : Mr. D. C. Turk* Mr. C. J. Earl*. 3 *months.*
„ Dr. Hampson and Dr. Kauntze : Mr. J. B. Parsons. Mr. W. Van't Hoff*. 3 *months.*
„ Dr. Douthwaite and Dr. Mann : Mr. R. Goulding. Mr. M. J. Hunter. 6 *months.*

CHILDREN'S HOUSE PHYSICIANS.

Mr. J. M. D. Hooper 6 *months.*
Mr. K. Simpson.* 3 *months.*

THROAT AND EAR HOUSE SURGEON.

Mr. T. S. Hart. 3 *months.*

OPHTHALMIC HOUSE SURGEON.

Mr. R. L. Timms.* 3 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. G. W. Scott. 3 *months.*

DERMATOLOGICAL HOUSE PHYSICIAN.

Mr. J. L. Moffatt.* 3 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. A. W. R. Williamson.* 6 *months.*

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. W. J. C. Symonds 6 *months.*

RESIDENT OBSTETRICIANS.

1. 5.50—31.10.50.: Mr. R. W. Hughes.*
1. 7.50—31.12.50 : Mr. E. P. H. Shortt.*
1. 9.50—28. 2.51 : Mr. R. G. O. Tayler*
1.11.50—30. 4.51 : Mr. A. E. R. Buckle.

RESIDENT JUNIOR CLINICAL PATHOLOGISTS.

1. 4.50—30. 9.50 : Mr. D. F. V. Brunsdon.*
1. 9.50—28. 2.51 : Mr. J. T. Cecil.
1.10.50—31. 3.51 : Mr. D. P. Winstanley.*

ORPINGTON : EAR, NOSE AND THROAT HOUSE SURGEON.

Mr. A. M. Reader.

SOUTHERN : EAR, NOSE AND THROAT HOUSE SURGEON.

Mr. W. A. Openshaw.

ORTHOPAEDIC HOUSE SURGEON.

Mr. P. S. B. Russell.

JOYCE GREEN : HOUSE SURGEON.

Mr. N. S. Galbraith.

HOUSE PHYSICIAN.

Mr. G. N. St. J. Penney.

*Ex-Service.

Hospital Information, etc.

APPOINTMENTS VACANT.

Applications are invited for the post of **Resident Anæsthetist** (B.2) ; duties to commence on 8th November, 1950.

Applicants must have held twelve months' House Appointments. Salary at the rate of £450 per annum, less £100 for board and lodging. The post will be tenable for six months in the first instance. Applications should be lodged with the Superintendent on or before **25th September, 1950.**

Applications are invited for the appointment of :—

Research Fellow in the **E.N.T. Department.** The appointment is full-time and the successful candidate will be expected to conduct investigations under the direction of the heads of the department. Salary within the range £600 to £1,000 per annum according to qualification and experience. A higher surgical qualification and some experience of oto-laryngology are desirable. Applications with the names of three referees should be sent to the Dean, Guy's Hospital Medical School, S.E.1., not later than **31st August, 1950.**

Whole-time **Research Fellow** in the **Department** of **Anæsthetics.** The salary would be within the range £600 to £1,000 per annum according to qualifications and experience. Candidates should preferably hold the D.A. Diploma. The appointment will be for a period of two years in the first instance. Applications with the names of three referees, should be sent to the Dean, Guy's Hospital Medical School, S.E.1., not later than **15th September, 1950.**

Whole-time **Research Fellow** to work primarily on the problem of **Mitral Stenosis.** The work would include the clinical aspects and previous experience and a higher qualification would be an advantage. Salary within the range £600 to £1,000 per annum according to qualifications and experience. The appointment would be for two years in the first instance. Applications with the names of three referees, should be sent to the Dean, Guy's Hospital Medical School, S.E.1., not later than **16th September, 1950.**

Whole-time **Research Fellow** to work primarily on the problem of the incidence of lower respiratory infection following dental operations. The work would include the clinical aspects and a higher qualification would be an advantage. Salary within the range of £600 to £1,000 according to qualifications and experience. The appointment would be for one year in the first instance. Applications with the names of three referees should be sent to the Dean, Guy's Hospital Medical School, not later than **16th September, 1950.**

Applications are invited for the post of **Medical Officer in the V.D. Department,** for attendance on four sessions per week; grading, Registrar, 1st year. Duties to begin on September 18th, 1950.

Applications should be lodged with the Superintendent on or before **9th September, 1950.**

Applications are invited for the post of **Assistant Physician in the Department of Psychological Medicine,** which includes the York clinic. The appointment will be part-time with attendance on five sessions per week, and will be made in accordance with the Terms and Conditions of Service for Hospital Medical and Dental Staffs (Consultants). The Assistant Physician will be expected to attend the Child Psychiatric Clinic as well as the adult Clinics.

Applications, stating age, qualifications, with dates, details of previous experience, with the names and addresses of three referees, should be sent to the Superintendent, Guy's Hospital, not later than **4th October, 1950.**

PASS LIST

ROYAL COLLEGE OF PHYSICIANS OF LONDON

M.R.C.P.

July, 1950.

A. E. Doyle — W. Fox
T. R. L. Finnegan

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.R.C.S.

R. R. Burn	L. R. McLaren
G. H. D. Channing	R. Merryweather
M. D. Cremin	W. Sewell
O. M. Jonathan	J. G. Stubbs
C. H. Kinder	J. D. Trethowan

UNIVERSITY OF LONDON

ACADEMIC COUNCIL.

Dr. E. R. Boland has been elected to the Academic Council for the year 1950-51.

FACULTY OF MEDICINE

Dr. E. R. Boland has been elected Dean of the Faculty of Medicine 1950-52.

RECOGNITION OF TEACHERS

Mr. R. O. Holland has been recognised as Teacher of the University.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

Dr. A. H. Douthwaite has been elected a Censor for the ensuing year.

BIRTHS

BROUGHTON.—On July 17th, 1950, to Josephine, wife of David H. Broughton—a daughter, Jane Margaret.

EADES.—On August 10th, 1950, at the Ipswich Maternity Home, to Ann (née Sykes) wife of Dr. John B. Eades—a daughter.

HANNAFORD.—On July 28th, 1950, at Bridgend, to Anne (née Tomkin) wife of W. W. Hannaford L.D.S., R.C.S.(Eng.)—a daughter, Lesley Jane.

HIND.—On August 2nd, 1950, at Nuffield House, to Margaret (née Fearnehough) wife of Dr. A. W. Hind—a son, John Wheelton.

VINE.—On August 19th, 1950, at Catterick Camp, to Betty (née Brookes) wife of Lt.Col. R. S. Vine, R.A.M.C.—a daughter.

DEATHS.

AUDLAND.—On July 31st, 1950, William Edward Audland, M.B.E., M.R.C.S., of 13 Davenant Road, Oxford, aged 90 years.

WINTER.—On March 7th, 1950, at Coniston, John Bradbury Winter, M.R.C.S., L.R.C.P.

EDS. {R.G. P.A.Z.

Guy's Hospital Gazette

PUBLISHED FORTNIGHTLY

ESTABLISHED 1872

Vol. LXIV. No. 1621 9th September 1950 Ninepence

Established 1885

THE MEDICAL DEFENCE UNION

MUSeum 1337

MEMBERSHIP EXCEEDS 34,500 Assets Exceed £135,000

Annual Subscription: £1 for first three years for newly qualified entrants, £2 for members of more than three years standing. (No entrance fee payable by candidates for election within one year of registration). Entrance Fee 10s.

Full particulars from the Secretary:
The Medical Defence Union, 49, Bedford Square, London, W.C.1

PATTINSON'S MAGNESIA

Regd. Brand

GUARANTEED B.P. QUALITY

Mag. Carb. Levis. ***Mag. Carb. Pond.***
Mag. Oxide Levis. ***Mag. Oxide Pond.***
Mag. Trisilicate.
Mag. Hydrate. ***Mist. Magnes. Hydrox.***

Supplied through all wholesalers by the sole manufacturers:

THE WASHINGTON CHEMICAL CO. LTD.

(A member of the Turner & Newall Organisation)

WASHINGTON, CO. DURHAM.

Modern Salicylate Therapy

ALTHOUGH acetylsalicylic acid is one of the most popular and effective non-narcotic analgesics available, its use has frequently been discarded by the physician in view of the possibility of its irritating the gastro-intestinal tract.

'Alasil,' however, helps to overcome this objection by providing the beneficial therapeutic effects of acetylsalicylic acid in such a form that it is acceptable even by delicate and disordered digestions. This tolerability is due to the fact that 'Alasil' combines acetylsalicylic acid with 'Alocol' (Colloidal Aluminium Hydroxide), an effective gastric sedative and antacid.

For these reasons 'Alasil' is an analgesic, antipyret c and anti-rheumatic which can be administered with complete confidence in all the conditions in which such an agent is indicated. It is so well tolerated that its use can be continued to the desired extent.

Alasil

A supply for clinical trial with full descriptive literature sent free on request.

A. WANDER LTD., London W.1.

M.321

GUY'S HOSPITAL GAZETTE

9TH SEPTEMBER 1950

CONTENTS

	PAGE
Correspondence	343
Apology	343
About the Park	343
Passim	344
Reviews. Surgery of the Hand. 2nd Edition. Lippincott, Philadelphia. By Sterling Bunnell, M.D.	345-347
Guy's Diary	347
Reviews	347
Hospital Information, etc.	348

Correspondence

SIR,—Now that the Channel Swimming season is once more at its height, I would like to draw the attention of your readers to Dr. George Brewster, M.B., Ch.B.(Edin.), who recently took part in the "Daily Mail" Cross-Channel Marathon.

Few people at Guy's seem to know that Dr. Brewster has a busy practice literally within a stone's throw of the Hospital. I therefore think it would be a pity if this fourteenth attempt—made in his 60th year—should go unmentioned in the *Gazette*.

For any Channel aspirants secretly amongst us, Dr. Brewster's book, entitled "My Channel Adventures," should make interesting reading.

Yours faithfully,

I. J. MACQUEEN.

About the Park

In our last issue we published the names of no less than ten Guy's men who were successful in the recent F.R.C.S. examination. This is a number to be proud of. In this respect we may mention that the latest course arranged by the Dept. of Surgery for candidates sitting their final F.R.C.S. examination begins this month. No less than forty students will be attending. Amongst them will be men from many parts of the globe and we hope that strangers and old Guy's men alike will enjoy their visit to Guy's.

The new times during which patients may receive visitors have resulted in many more visitors flowing through the Hospital than ever before. This is an arrangement which is certainly appreciated by patients and visitors and the times which have been chosen seem not to interfere unduly with either nursing or teaching arrangements.

Apology

We offer our apologies to the following firms whose advertisements have not appeared in this edition for reasons stated in our editorial:—

Alliance Assurance Co. Ltd.
The Anglo-French Drug Co. Ltd.
Edward Arnold & Co.
Barcley Corsets Ltd.
Boots Pure Drug Co. Ltd.
Bryant & May.
Camberwell House.
Car & General Insurance Corporation Ltd.
Alexander Carus & Sons Ltd.
J. & A. Churchill Ltd.
Clinical Research Association Ltd.
Dental Manufacturing Co. Ltd.
Ilford Ltd.
Imperial Chemical (Pharmaceuticals) Ltd.
Leigh Dental Co.
May & Baker Ltd.
National Provincial Bank Ltd.
Pickford and Hay's Wharf Shipping & Forwarding Co. Ltd.
Portland Plastics Ltd.
Rayner & Keeler Ltd.
Spencer (Banbury) Ltd.
Unicam Instruments (Cambridge) Ltd.
United Glass Bottle Manufacturers Ltd.
Vitamins Ltd.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1621 *9th September, 1950* *Ninepence*

PASSIM

THE present issue of the *Gazette* is produced under difficult conditions. The compositors strike affects practically all London printed periodicals and at the time of writing there is no sign of a settlement. What we offer our readers is a token and little more. We hope that normal conditions will soon return and meanwhile we offer our readers and our advertisers our apologies for the present inadequate edition.

It has always seemed to us unfortunate that the effect of so many of present day strikes should fall upon those least concerned with the disputes. Our purpose at present, however, is not to enter into controversy on the merits or otherwise of particular disputes. It is, rather, to state our view that if one believes, as we do, that Hospitals and everything connected with them ought to be spared the inconvenience caused by strikes, then one ought also to insist that never, never, never must doctors, nurses or hospital employees of any sort, even for a moment, to consider the use of such a weapon. These last two years the strike weapon has been mentioned on more than one occasion. Never, we are proud to say, at Guy's. We sincerely hope and trust it never will.

LATE summer; languid, heavy, not yet touched by the mellow shades of coming autumn; thundery, almost brooding: this is the true end of the year. The farmer, busy harvesting his crops pauses only to plan his next season. The townsman, returned or soon returning from his holiday, must settle down anew to his customary year-long occupation. New Year's Day is but a man-made mark upon the calendar. December and January are both alike. Both cold, both wet, both wintery. August and September differ markedly. In early August the corn is being cut. By late September the fields are being ploughed. In August one season ends, in September another begins. And this season, the busiest of the year for countrymen is for students and for doctors the least busy of all. Time presses less urgently. The tempo of our lives is slowed. And now, whilst time for reflection is ours, we might well spend a moment to reflect on . . . time.

We have all known moments when the watch upon our wrist marked the passing hours at a speed devoid of semblance to our own sensation of time. We have known times when the clock went tick-a-tick-a-tick with hurrying monotony, the while we kept some long night vigil. But the clock face lied. We know it did. The minutes crawled "like paralytic centipedes." Sometimes the hours seemed almost to stand still. How odd that time should vary thus! When we were young a year seemed like an age. At four years old it was a quarter of our lives. When we are fifty, though, a year will be but two per cent. The fact is that, however it may seem to us, time passes by, evenly, never hurrying, never slowing; softly, insidiously, relentlessly, upsetting our nicest calculations, our finest plans, and most of our resolutions.

> . . . reckoning time, whose millioned accidents
> Creep in 'twixt vows and change decrees of Kings,
> Tan sacred beauty, blunt the sharp'st intents,
> Divert strong minds to the course of alt'ring things.

In medicine, too, time may often seem inconstant. Time is sometimes on our side, sometimes against us. It is the speed of natural processes with which we reckon ultimately and these we measure in hours and days and weeks only for want of some other means. We could enlarge upon this theme . . . had we but time. Also, it is late summer, languid, heavy . . .

Reviews

SURGERY OF THE HAND

By STERLING BUNNELL, M.D. 2nd Edition. Lippincott, Philadelphia.
Price: £6. 6s.

This is the second edition of a very notable work. Dr. Bunnell starts his book with an appropriate and brief review of the history of hand surgery. This department of surgery resembles the history of the hand in art in being one of the last to develop. Thus for centuries the hand was represented in paintings as a flipper or as a simple undigitated appendage. Not until the Renaissance were consistent attempts made to depict the fingers and the detail of the hand accurately. Similarly, successful surgery in the hand except for amputation and the ablation of disease was, long after complicated repairs were performed in other parts of the body, limited to very simple procedures such as repairs by approximation of extensor tendons. It is a fact of interest that almost all the major steps in the history of this subject have been made, or at least initiated, in the United States. Dr. Kanaval in Chicago first drew attention to the great importance of the infections of the hand as a cause of preventable illness and economic loss. He classified these infections on an anatomical basis, described their pathology and clinical course, and was the first to propound a successful and rational plan of drainage and management for them. Kanaval's school has been extended by Dr. Sumner L. Koch to cover the surgery of repair; Dr. Koch has also continued to make original contributions to our knowledge of the pathology and treatment of infections of the hand.

In repairs within the digits and the palm the critical difficulty is that relatively small amounts of fibrous tissue—amounts indeed, normal to the repair and such as would have a negligible disabling effect elsewhere in the body—can stiffen and cripple a digit. The delicate gliding movements of tendons within their sheaths are particularly vulnerable; so are the pericapsular ligaments of the interphalangeal joints. The tendon sheaths can be obliterated not only by infection but by fibrous tissue deposited in clean healing between cut ends of tendons and sheath. Outside the digital theca the tendon repair problem is less exacting, and surgery of a reasonable standard of cleanliness and gentleness is often followed by successful results. The first man to crack the special problem of repair of the flexor tendons within "No man's Land" *i.e.* in the theca between the palmar creases and the distal volar creases of the finger, was Sterling Bunnell of San Francisco. Between 1918 and 1920 a number of contributions were made by him in "Surgery, Gynæcology and Obstetrics" and "The Journal of Bone and Joint Surgery" which finally showed how this most difficult and meticulous of repairs could be brought within the realm of practical procedures.

Dr. Sterling Bunnell is a Californian whose name suggests that he derives from British stock. He is, and has always been, a general surgeon. I understand that the major part of his career and work has been outside the teaching hospitals of San Francisco. His special interest and high technical skill have led him particularly to those aspects of surgery which demand the finest techniques. One expression of this interest led to the first completely successful facial nerve suture outside the facial canal. He reported this case in 1922. His interest in medicine and biology has always been broad. In biology it dates from his boyhood and has permeated his whole life—domestic as well as clinical. Animal specimens, collected, preserved and mounted by him at the age of 17, form part of one national zoological collection in a Washington Museum. His house in California contains a diversity of animals; some dissected, some living. The living are said sometimes to include such charming household pets as the black widow, and others of the more dangerous varieties of snake and spider.

He sees the hand and describes it in his book not simply as a problem of mechanics but as a number of interlinking and related problems of comparative anatomy, embryology, mechanics and economics. He writes that the economic status of man in modern life depends on his hands. If the surgery of a hand repair is deficient not only the man but the whole of his family may have to live at a lower economic level.

Between the two world wars Dr. Bunnell had already established a pre-eminent position in hand surgery. It was therefore only natural that he should be chosen to act as Consultant in Hand Surgery to the U.S. Army in 1942. This appointment had far reaching effects. It led to the foundation of a school of surgery and the diffusion of a number of techniques and much specialised knowledge throughout the country, to the great benefit of the people of the United States. His development of these hand centres for the care of hand wounds during the war was a truly great achievement. These nine Centres were sited at the same general hospitals as also housed the Army orthopædic, plastic and neuro surgical units. The surgeons of these other specialities could therefore contribute to the treatment of the widest possible number of hand disabilities including many cases which would never otherwise have reached them, could pool their ideas, and contribute their techniques to the Hand Teams. Bunnell chose as the surgeons to staff these Hand Centres men "all of an ingenious turn of mind." They were surgeons who had had considerable experience in orthopædic and plastic surgery, and often some experience in neuro surgery. They were thus in a position when necessary to give themselves the complete treatment to the composite type of injuries so often seen in missile wounds. The link between the different Centres scattered over the United States was Dr. Bunnell, who maintained throughout the U.S. war period and long after, a constant vigilance from one Centre to another. He saw and examined no less than 20,000 wounded hands. At each Centre which he visited he would examine the new cases and the old special problems. He would operate; would discuss and debate old and new cases and methods with the local team; he would make contact with local plastic, orthopædic and neuro surgeons; and he passed to all concerned the news and views from the other Centres he had visited. In this way the nine Hand Centres were unified to become a single and comprehensive school of hand surgery. The effect on the results of treatment for the wounded American soldier was that the general standard of treatment for their hand wounds was very much higher than observed elsewhere in the world. Your reviewer was fortunate in that some of his visits to these Hand Centres coincided with those of Dr. Bunnell; he was able to see him examine 40 cases in a day, while taking up to 40 minutes on a new case, and to see the skilled carpentry and practical common sense of his operations; as well as observing the way in which his great prestige and obvious sincerity could allow him to make the most devastating remarks in a manner which was entirely effective and caused the minimum of umbrage.

"Is this the end result?" "Is that as far as you can get?" "This is the normal"—comparing the cramped spread of a burnt airman's hand with the enormous range of his own mobile fingers. Such remarks and others were gentle enough but clear reminders to the surgeons, who were taking reasonable pride in their achievements, that the end result was still far short of the highest objectives.

"Surgery of the Hand" is a comprehensive book which in addition to surgery and pathology includes embryology, mechanics, surgical anatomy, economic and legal aspects of the subject. This vast material is presented in most expressive and forceful American (but in a language quite free of the rarer and more incomprehensible Americana described by Mencken). A few of his phrases may be quoted: "In man the purpose of the upper extremity is to place its most important part, the hand, where it can work." "The hand extends mechanically to the elbow, and dynamically to the opposite cerebral cortex." Referring to his stainless steel "pull-out" suture for tendon repair, "the suture material which causes the least reaction is the suture which is not there." He makes the following references to tourniquets: "Could a jeweller repair a watch immersed in ink?" "The pneumatic band of blood pressure tourniquet apparently never causes a paralysis, at least not when left on for less than 3½ hours."

The book describes in detail methods of repair which are known to work, given the right amount of attention to technical detail. The results are not those of Dr. Bunnell alone, but are taken from a large number of his pupils. Particular attention is given to recent experience of the problems of skin cover, tendon and nerve grafts, and the treatment of composite injuries needing repair of cover, bone, tendon and nerves. There are, details of

a variety of flaps for repair of cover defects, of methods of joint mobilisation, and of digit reconstruction. Dr. Howard, Dr. Bunnell's partner in San Francisco, provides a very clear and comprehensive section on congenital and acquired affections of the hand. The standard of production (by Messrs. Lippincott) is very high indeed. The paper is beautiful; the photographs include more colour plates than I have seen elsewhere in a surgical textbook.

This is a book based on the experience of a man who has not only directed and co-ordinated the work of clinics and centres and the policy for a great Army, but one who for over 30 years has seen to it that he has himself done the day to day detailed treatment and observation of hand cases. Joseph Lister attended Kings daily to do his own dressings. Sterling Bunnell's book is based on a similar familarity with clinical material. For whom is this book intended or best suited? It is of value to any student of surgery; it can be called essential to all those who are constantly caring for the injured hand. But every surgeon has an interest in the treatment of the injured hand. This is the best produced, most authoritative and comprehensive book on the subject for those who want to have such a work rest on their own bookshelves.

P.C.

ACADEMIC

September		
		Exhibition. Surgical Department. "The Surgery of the Liver."
14th	1.00	Mr. Eckhoff. Clinical Lecture.
	4.30	X-ray Meeting. Gordon Museum.
15th	1.00	Dr. Boland. Clicical Lecture.
18th	1.00	Mr. Gibberd. Clinical Lecture.
21st	1.00	Mr. Wass. Clinical Lecture.
	4.30	X-ray Meeting. Gordon Museum.
22nd	1.00	Dr. Hampson. Clinical Lecture.
23rd	10.00	Surgical Department. Clinico-Pathological Meeting. Anatomy Theatre.

SPORT

11th	Rugby 1st XV *v.* Somerset County XV. (Away).
16th	Rugby 1st XV *v.* Catford Bridge. (H.O.P.).
	Rugby "A" XV *v.* Carford Bridge "A." (H.O.P.).
23rd	Rugby 1st XV. *v.* Blackheath. (Away)
	Rugby "A" XV. *v.* Blackheath "A." (Away).

Sport

ASSOCIATION FOOTBALL

At the Annual General Meeting of the Guy's Hospital Association Football Club, held in the Medical School on May 15th, 1950, the following officers were elected for season 1950-1951 :—

President.
R. D. G. Gain, L.D.S., R.C.S.
Captain 1st XI.
D. M. E. Allan.
Vice-Captain 1st XI.
A. d'A. Fearn.
Captain 2nd XI.
R. W. Willcocks.
Hon. Secretary.
A. d'A. Fearn.
Hon. Fixture Secretary.
B. S. Cornhill.

The club will continue to run the 1st XI in the Southern Amateur League, Div. III, and the 2nd XI in the reserve section of that league.

Allan d'A. Fearn,
Hon. Sec. G.H.A.F.C.

LAWN TENNIS

In the final of the Blackburn Doubles Cup, R. A. Biddle and D. Duckworth beat E. Searle and A. N. Other, 6-3, 8-6. "A. N. Other's" identity is now disclosed to be the President of the Club and the donor of the Cup—Mr. Guy Blackburn.

In the final of the Lane Washborne Singles Cup, C. H. Opie beat E. Searle, 6-2, 7-5.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for two posts of **Junior Lecturer in the Department of Pharmacology.**

Salary according to qualifications in the range £600-£900 per annum, with superannuation and family allowance. For one of these posts applications from chemists interested in Pharmacology will be considered.

Forms of application obtainable from the Dean and should be forwarded with the names of two referees not later than **4th October, 1950.**

PAPERS BY GUY'S MEN

Baker, C. Discussion on Faints and Fits. *Proc. Roy. Soc. Med.*, 1950, **43,** 518.

Barber, H. W. (1) Psoriasis Arthropathica (2) Vitiligo with Migraine. *Proc. Roy. Soc. Med.*, 1950, **43,** 553-555.

Barber, H. W. and Yorke, A. Pemphigus Vegetans Treated with Aureomycin. *Proc. Roy. Soc. Med.*, 1950, **43,** 555.

Beale, A. J. and another. Poliomyelitis and Immunization against Whooping Cough and Diphtheria. *Brit. Med. J.*, 1950, ii, 251.

Campbell, J. M. H. Discussion on Faints and Fits. *Proc. Roy. Soc. Med.*, 1950, **43,** 515.

Foxon, G. E. H. A Description of the Coronary Arteries in Dipnoan Fishes and Some Remarks on their Importance from the Evolutionary Standpoint. *J. Anat.*, 1950, **84,** 121.

Lockwood, J. F. An Unusual Case of Locked Jaw. *Proc. Roy. Soc. Med.*, 1950, **43,** 506.

Pegum, J. S. (for L. Forman). Poikilodermia (Lane). *Proc. Roy. Soc. Med.*, 1950, **43,** 557.

Rewell, R. E. Discussion on the Mechanisms of Disease Production by Ectoparasites. *Proc. Roy. Soc. Med.* 1950, **43,** 533.

Suzman, S. Diagnosis and Treatment of Cardiac Pain, I. *Med. Pr.*, 1950, **124,** 123.

Symonds, Sir Charles. Discussion on Faints and Fits. *Proc. Roy. Soc. Med.*, 1950, **43,** 507.

Toussaint, C. H. C. and others. Nursing and Tuberculosis in a General Hospital. *Lancet* 1950, ii, 121.

SOCIETY OF APOTHECARIES OF LONDON

Final Examination
June 1950

Pathology, Bacteriology and Forensic Medicine
F. H. Walker

Medicine
J. R. Evans

SOCIETY OF APOTHECARIES OF LONDON

Final Examination
July, 1950.

Surgery.

*D. G. Bluett	*H. C. Killey
F. J. Covill	*N. L. Rowe.

Pathology, Bacteriology and Forensic Medicine.
*D. G. Bluett

Medicine.

*D. G. Bluett	F. H. Walker

Midwifery.

*D. G. Bluett	N. M. Midgley

*Have completed the examination.

CONJOINT BOARD

D.O.
H. L. Backhouse

D.O.M.S.
J. R. C. Spicer

D.M.R.D.

D. J. Chapman	R. P. C. Mac Donald
K. E. Hodge	W. H. Smith
D. C. Light	

UNIVERSITY OF LONDON

Third (B.D.S.) Examination in Dental Surgery
July, 1950.

Honours.

D. R. Burnapp. (*Distinguished in Operative Dental Surgery*)

Pass

J. J. Dickens	P. E. Gerrard
W. H. Garland	H. W. Powell

M. D. Examination.
July, 1950.

Branch I (Medicine)

P. D. Bryant	B. E. R. Symonds
D. M. Douglas	G. I. Tewfik
S. L. O. Jackson	D. Q. Trounce
*J. S. Stead	

*Mark of distinction and University Medal.

Branch III (Psychological Medicine)
J. P. Crawford

Branch V (Hygiene)
L. R. L. Edwards

SPECIAL SECOND EXAMINATION FOR MEDICAL DEGREES.

July, 1950.

A. Booth	H. L. M. Partridge
N. C. Brooks	J. F. Pritchard
J. Bullen	J. D. Pryce
E. C. Dawson	M. J. Purser
A. G. F. Dominick	I. S. F. Rae
J. R. Duke	G. S. Rawson
J. Endean	A. A. Roe
P. J. Frost	A. P. O. Stewart
I. E. Gurner	M. K. Strelling
P. A. T. Martin	R. V. L. Thomas
R. G. Orr	D. J. Whitney
J. V. Parson	R. W. P. Yates

APPOINTMENT

Mr. Kenneth L. Wilson has been appointed Senior Registrar to the Ear, Nose and Throat Department, Bristol United Hospitals and Bristol University.

GUY'S BIENNIAL DINNER

Guy's men are reminded that the Biennial Dinner will be held at the Connaught Rooms, Gt. Queen Street, on Friday, 6th October, 1950, at 7 p.m. for 7.30 p.m. Those who have not applied, and who wish to attend, are urged to send in their applications without delay to the Hon. Sec. Mr. O. Gayer Morgan, Medical School, Guy's Hospital, S.E.1.

CHANGES OF ADDRESS.

H. Lester, L.D.S., R.C.S. (formerly H. L. Lefcovitch) 135 St. Germans Place, Blackheath, S.E.3.

R. Merryweather, F.R.C.S., Princess Elizabeth Orthopædic Hospital, Exeter, Devon.

BIRTHS

DARKE.—On August 17th, 1950, at Shearwood Road Nursing Home, Sheffield to Margaret (nee Wild), wife of Dr. Christopher Darke, a sister (Elizabeth Margaret) for Jonathan and Christopher.

RAWLINGS.—On August 16th, 1950, to Ann (nee Kirk), wife of Peter Rawlings, M.D., of Garden House, Halstead, Kent, a son.

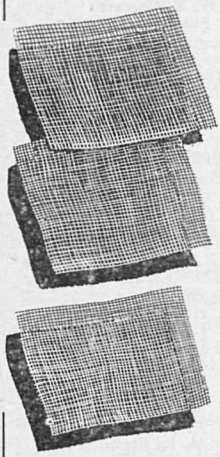
DEATHS.

DODD.—On August 17th, 1950 Frederick Henry Dodd, M.R.C.S. (Eng.), F.R.C.P. (Lond.), at 222 Woodstock Road, Oxford, aged 60 years.

Eds. {R.G. P.A.Z.

Tulle Gras Dressings by **DALMAS**

Conform to highest therapeutic standards



SULPHONET Squares and Strip

containing 5% Sulphathiazol, 2% Urethane

URO-SULPHONET Strip

containing 5% Sulphathiazol, 2% Urethane

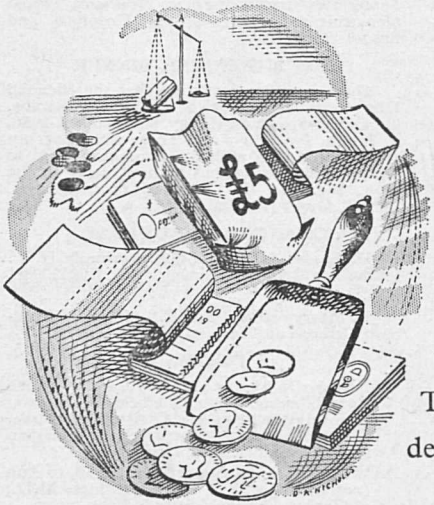
PETRONET Petroleum Gauze Squares

with Balsam of Peru

Samples and prices with pleasure on request to Medical Medical Dept., A. de St. Dalmas & Co Ltd., Junior St., Leicester (and at London, Leeds, Glasgow, Belfast).

DALMAS, Leicester

Specialised Service to Medicine since 1823



Account settled . . .

. . . paid by a cheque drawn on the Midland Bank. There is no safer or simpler means of payment whether the sum is large or small. That is why so many people decide to

open an account with the MIDLAND BANK

Printed and Published for the Committee of Guy's Hospital Gazette by ASH & COMPANY, LTD., Holyrood Street, London Bridge, S.E.1

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1622 *23rd September, 1950* *Ninepence*

PASSIM

CLEARLY the excellence of any hospital must be judged ultimately by the help it affords its patients. Medical and surgical skill coupled with truly sympathetic nursing can overcome almost any difficulties or shortcomings of a material nature. But not quite all. The environment and the surroundings have an undeniable influence on the patients' reactions and, furthermore, on the reactions of the visitors meeting them.

Guy's has been blessed with a fortunate layout. The Park, indeed, offers a practically unique *rus in urbe*. The wards now in use, with maybe one exception, are "light, airy and well-arranged." In addition, the out-patient departments have recently been refurbished with gratifying results.

One "black spot" nevertheless remains, and that is the dismal and virtually indescribable entrance to Hunt's House. The fabric of the Hospital suffered numerous wounds during the last hostilities. Many of them have healed remarkably well, a tribute to the health, resiliance and fitness of the Hospital corporate. The others, surely, need not be licked and nursed for evermore. Admittedly the staircase is improvised, but it manages to serve its function. Granted many of the girders and pillars are damaged, but their reinstatement and repair would be a massive and perhaps unjustifiable undertaking. That is no excuse for leaving builder's rubble in heaps month after month, for allowing dilapidated bedsteads to adorn the landings, for permitting electric wires to drape the walls and ceilings with well-nigh insolent abandon, for erecting on the ground floor a barrier that is reminiscent of the cattle landing-stage at Liverpool dock, for denying the walls a little plaster and for withholding so much as a coat of paint. The few, new, electrically lit ward names appear strangely incongruous amid these surroundings.

Calls upon the resources of the Works Department are, we know, overwhelming and insistent. If, however, they cannot give us the efficient elegance of a main line station in New York, or the cool, bright neatness of a modern departmental store, could we not at least have in the central block of Hunt's House the freshness, brightness and welcome of a well-kept home?

Harvest Thanksgiving will be celebrated in the Hospital Chapel on Sunday, 24th September. Holy Communion will be at 7 a.m. and the morning Service at 10.45. The preacher is to be the Rev. F. P. B. Ashe, M.A., of St. Mark's, Kennington, and the music will be led by a special Guy's choir.

Gifts in kind will be gratefully received at the Chapel up to 11 a.m. on Saturday, 23rd September.

On 4th September the Board of Governors appointed the Rev. Sidney Franklin of 23 Red Post Hill, S.E.24, as Free Church Chaplain (part-time) to the Hospital as from 1st September, 1950.

Music and Migraine

By H. St. H. VERTUE

THE music's doleful strains were drawn to a conclusion that had seemed long in coming: the hearer's stern ascesis had reached its end: the symphony by the distinguished modern composer was over at last. After that final and fatal attempt to drown his sorrows in a low-class public house the hero had been brought down. It was not the saxophone that did it, for he was not the man to mind it: it was the gin, evoking that mortal flow of free acid, which ate its way through the last frail tag of mucous membrane and bit into a blood-vessel. Still drunkenly bawling, he lurched into the street, there to meet at once with an immense hæmatemesis. They bore him into hospital, and in the last movement there he lay, a figure too familiar in these stressful days, blanched, pinched, pulseless, sweating, sighing feebly a little and licking the poor parched lips, until with the ebbing tide of blood the tiny stream of life trickled away in an unearthly quietude. Nor drip by mouth nor drop by vein could save him: not even a surgeon's aid could compass his delivery. The twentieth century had claimed another victim! When this exercise of endurance had been duly performed, I called to mind Epicurus's aphorism, "The recollection of good things past is the greatest contribution to the pleasant life," and reflected how different had been England's musical education in days gone by.

Imagine, if you please, a sweltering evening in late summer and a throng of persons with eager footsteps and happy faces, as though they were about to receive some great benefit, all hastening northwards along Upper Regent Street towards the church spire in Langham Place, known to Londoners as "the Extinguisher." One and all are urged by a common impulse, for instead of entering the church they pass through the open dorrways of another building to the right of it, which is also in its way a place of worship; and this is the Queen's Hall. I know that this building was not architecturally ugly, as it probably, as it certainly would be if it were erected now; I have admired I know not how many times the perfect proportions of its huge interior, and I and every one of us saw in its old face the beauty that resides in features well and deservedly loved. It was here that orchestral music was re-born, For two centuries music in England had wilted beneath the blight of Italian opera, just as Henry Carey had foretold.

> When Englishmen implicity despise
> Their own produce, can English merit rise?
> Nipp'd in the bud, nor suffer'd once to blow,
> How can it ever to perfection grow? . . . .
> Are we at last so despicable grown
> That foreigners must reign in arts alone,
> And Britain boast no genius of her own?

That native musicians could at last prove their metal was but a part of the boon that the place bestowed. Equally important was the unparalleled opportunity of learning to enjoy and to understand the best works of the greatest composers, in a pure form, suitable to the native genius. It is no wonder that those who joined the great crowd that poured in through the open doors felt as if they might be taking part in a religious festival. But this, mark you, was religion without fear, without guilt, without authority. Had it been in days of Greece or Rome, saffron would have strewn the floor, an alter would have exhaled Panchæan odours, and hymns and prayers been offered to the immortal gods. Inside this sacred building a man might think or feel as he pleased: there was not even the censorship that insulted dramatic art.

> Unus homo nobis conando restituit rem,
> Ergo postque magisque viri nunc gloria claret.

The one man alone who restored our state, who did more for music in England than any other, living or dead, was Henry Wood, whom his admirers regarded with unbounded affection and esteem; and here he is, punctual to the minute, with a carnation in his button-hole!

In youth I would sit in any part of the house, or stand, a Promenader, as fancy or my purse dictated; but after marriage I always chose the same two seats if I could get them, block B, front row, numbers 20 and 21. An exceedingly obliging wife, whose Latin name means gentle, forbearing, indulgent, merciful, would sit on my left, a gangway would be on my right and before me was nothing but space, through which I looked down upon the orchestra, secure from annoyance or interruption and able to exert the power of concentration to the full. On the night that I am describing my wife, for once, was not by my side; but my neighbour, whoever he was, knew how to listen. This was a night of Tchaikovsky's music. All the good composers were well represented at these concerts, but none are more reminiscent of them than Beethoven and Tchaikovsky. To the music of the latter I now gave my undivided attention.

The first item on the programme was a pretty little piece for the piano, the Chant sans Paroles, orchestrated and included for a very curious reason. The British Broadcasting Corporation had by then begun to take a share in the proceedings, and it insisted that the first part of every broadcast concert must end precisely at nine o'clock, so that its egregious "news" might be delivered with exact punctuality. When the time occupied in playing the main items had been calculated, this little snippet was tacked on, because it happened to be of exactly the right length. A much more nefarious practice than this has since appeared, that is of cutting sections out of symphonies to make them fit. But at the moment we are with Wood, who believed that the great composers knew their business best.

There followed the violin concerto, one out of that precious casket of these works, which require so much tact, so much delicacy, that the great composers are represented each by but a single specimen, Mozart alone excepted. The programme informed me, as I knew it would, that "the opening subject awakens interest"; but my interest, whjch needed no awakening, soon began to suffer serious interruption from certain disagreeable sensations. The last movement came, and I remembered how my authority would tell me that "Beethoven would have enjoyed it"; but I felt very bitterly that not Beethoven himself would have enjoyed it, if he were in such a plight as I then was. When at last the end came, I rose immediately from my seat and made such speed down the passage of the Queen's Hall as I have never made before or since. Arrived at the compartment which the Arabs so pleasingly call "the house of water and refreshment," I delivered myself with a gasp of relief of hundreds of c.c.'s of pure and limpid fluid. The process semmed to go on so interminably that the pleasure of the detumescence began to be tempered by a fear that I should be late for the symphony; but audiences at the Queen's Hall were generous in their applause, and I sank into my seat just as the horns and bassoons sent forth their challenge, to freeze the young soul and harrow up the blood and make each particular hair to stand on end.

The symphony was the great Fourth, in F Minor. It matters not what Tchaikovsky's disability was: it matters only that he was baffled but fought on, fell but rose again, that he proclaims to all that care to hear him that such affliction of the soul is *not* greater than a man can bear. How he gathers himself together at the end of the first movement! A moment's sad singing in the valley, then up the heights he springs, slips, falls back, climbs again and from the summit surveying his world, utters his conclusion in massive minor chords, the symbol of an undaunted will. "Genius is energy," they say with Blake, "energy is eternal delight." Completely absorbed, I followed him through the conflict of the first movement; through the pensive dreaming of the second, with its recall of youth, "which now is sad because it has been sweet"; through the dainty devices and fanciful imaginings of the third; through the mirth and revelry and whole-hearted enjoyment of the fourth with its interpolated warning, that a thoughtful man cannot neglect to know how human life has its tragedy —and I was awed, as always, by the immense power behind Tchaikovsky's symphonies, was lost, as always, in admiration of the master's grasp of detail, in his noble lucidity and in the sublimity of his architecture, and was lifted, as always, to the seventh heaven of delight by the sheer beauty of his sound. Then I left the Hall, calling once more as I passed at the aforesaid place of convenience, but saw nothing significant in the act, and taking a train home,

eventually ceased to live in the music and, so to speak " came to." It was then that I recollected with surprise that when I had entered the hall, I had been suffering all day from a headache, which had grown steadily worse, one which I expected to continue until sleep relieved it: but instead of getting worse it had completely disappeared during the concert, while I had forgotten all about it!

Two or three years passed away, and again a headache was besetting me in the eventide. Too weary for reading or for work, I bethought me that the wireless might provide some music that would pass the time agreeably, so I turned over the programme and found a suitable concert. The first work was Schubert's Unfinished Symphony; and the effect was instantaneous. My fancy suggested a deep rut, such as a cart might have left in damp ground, in which lay a butterfly, a red admiral, with closed wings, who at once spread his wings and began to flutter upwards. Behind him was a border of Michaelmas daisies, Chrysanthemum uliginosum and other plants of late summer, where hundreds of bees and many another butterfly, peacock, painted lady or tortoise-shell, hummed and flitted and sipped the nectar. Up and up fluttered the red admiral, into the misty blue and golden sunlight of September. When the first movement was over, I was obliged to dart across the hall, for a profuse diuresis had set in. The second movement came and went, and again I made the same journey for the same reason. The next piece was the second movement from Tchaikovsky's second symphony—Tchaikovsky again! This completed the cure; and with one more copious outpouring I was restored to health and freedom from pain. Some French music followed, a suite of Massenet or Saint-Saëns, and it was while this was being performed that I recollected the events at the concert two or three years before and became aware of the significance of them all. My imagination caught fire. Had I not stumbled on a novel but quite reasonable means of treating a syndrome? I began to think of the observations that I should make on the effects of different composers on migraine, or on the hitherto unknown power in music of restoring a disturbed water-balance. Music, migraine and the water-balance—how tempting! But I was doomed to disappointment after all, for fourteen years have elapsed since these events occurred and not another headache have I had! Nevertheless, even from this scanty material one may draw a few deductions.

Years and years ago Sir Charles Symonds stated in the *Gazette* that migraine most commonly begins at puberty or in the forties, but also sometimes at the age of twenty-nine. Mine began punctually when I was twenty-nine. It was never more than a minor complaint, afflicting me not more than three or four times a year and only to a moderate extent. I never ceased work on account of it, never neglected a task in the garden, never mentioned it and never took a drug. Pain was sometimes behind one eye only, sometimes behind both, and always as well in the occipital region. There was a feeling of dullness and of lack of imagination, but the faculties seemed only once to be perceptibly diminished. On that occasion nothing would come into my head but two lines, one from Keats,

Savour of poisonous brass and metal sick,

and one from Shelley,

To cling like burning gold round the dissolving brain.

I saw plenty of patients that afternoon, but when I took up the pen to make the notes, I had difficulty in remembering what it was that I had just seen. No nausea nor vomiting ever assailed me, but there was frequently this brassy taste in the mouth, the explanation of which I do not know. Teichopsia was a common event, but was never the precursor of a headache, so far as I was aware. On the other hand, since every headache was in existence on waking, I should not have known whether the preliminary phenomena which give rise to teichopsia in the waking were present or not in one asleep. The likely explanation is that all attacks of migraine were abortive in my case except those that came on during the night. For sixteen years I received these occasional and not too troublesome visitations, and then they ceased as abruptly as they had begun. Regarding migraine, as I do, as a trouble that arises from some faulty working of the mind, I ascribe this deliverance to the increasing wisdom of advancing years, a pleasant belief, out of which I am not to be shaken in a hurry.

My mother suffered occasionally from migraine, my father very badly: by the rights of it I should have been much troubled by this disease; yet I was not. It was one thing to be born and to receive a good culture at about the year 1860, another to be a child of the eighteen-nineties. In the former period science was assailing religion, and artists were attacking the Puritan morality and the encroaching Philistinism of the middle class. A conflict was very readily engendered in the mind between hedonistic and idealistic principles. But there was no conflict in the eighteen-nineties: they were days of achievement, not of struggle. When summer is drawing to its close, day may succeed day of balmy warmth, still air and mellow sunshine, until the illusion is born that this is the nature of things, which will never change. To such a fortunate environment in childhood I have no doubt that I owe the relative immunity from migraine that I enjoyed, the late onset, the early departure, the mild attack and the successful repulse of the disease whenever the higher faculties of the mind were awake. Now the spirit of man is unquiet again; but although migraine still exists, the damage done to the body by the new tribulation shows itself in quite different directions, in a greater frequency of sclerosis of the coronary artery and in an immense increase in peptic ulceration.

The sufferer from migraine does not know what his own conflict is: in other words the roots of it lie in the unconscious. The mechanism by which it is produced is said to be first a constriction of the arteries in the visual area of the cerebral cortex, and then a dilatation, which leads to a stretching of the meninges and a stimulation of the sensory fibres of the fifth and tenth nerves. But this cannot be all, for the stomach is often affected, and this fact suggests that the hypothalmic region may be involved. In some cases, of which mine is an instance, the pituitary gland is disturbed, doubtless by agency of the hypothalamus. A ready explanation of the duiresis described would be that the antidiuretic hormone of the pituitary was over-produced during the attack and then suddenly withdrawn at the conclusion. That there had been a retention of fluid seems likely, because after the duiresis there was no thirst. Readers of J. H. Burn's book *The Background of Therapeutics* will be well aware that it has been found experimentally in dogs that "emotional unrest" does cause secretion of the antidiuretic hormone. When, then, music abolished the "emotional unrest," it simultaneously released the viso-dilator nerves of the meningeal arteries and prohibited the posterior lobe of the pituitary gland from secreting any more antidiuretic hormone. In the absence of music relief came gradually during sleep, and then the hormone was withdrawn slowly, so that the effect was not noticeable.

If we next enquire how it is that music produces so potent and dramatic an effect as this, we find ourselves in very difficult country. Music has been put forward as the type of pure art, which is nothing *but* art, because there is no matter in it apart from form. Consider poetry as a contrast. The poet tells us directly of something in well chosen words, and so he appeals to our intellect; but there is also a large range of human thought and human feeling inaccessible to this direct approach, to gain access to which he uses imagery and symbols. So wide is his art that he has yet another resource: by metre, by rhyme, by careful choice of sounds, by nice variation in stress and quantity, he achieves that perfect union between the meaning and the music of the words which awakens and heightens emotion and feeling in the way that is characteristic of poetry. The composer, on the other hand, has command only over rhythm and sound, unrelated to any expressed meaning: it is through his musical form alone that he can reach us: yet he awakens emotion freely and can certainly heighten thought. Music can be divided conveniently into two sorts, an older kind in which the composer was content to weave beautiful patterns of sound, which invited the listener to attention and rewarded him with calm pleasure; and a newer, which penetrated deeply into the hearer's mind and aroused in him keen emotion, to which in turn the intellect could respond. In the eighteenth century composers were moving from the narrower to the more generous conception of their art, but it was Beethoven who was the protagonist of the new music. How the great composers can make their way into the remote regions of our minds is explicable only on an abstruse theory of sense and imagination, such as Wordsworth's. They seem to offer us through their music a communion with themselves, of which we may or may

not be able to partake, for the power of response is by no means universal, and music-lovers themselves have their own limitations. Taste in music rests on less sure foundations than taste in poetry, is less catholic and more mutable: and it is not always innocent of artistic snobbery.

Music that has the effect that I have described must have been deeply felt. That Schubert's Unfinished Symphony is a poignant expression of personal feeling no one, I suppose, would doubt. As for Tchaikovsky, he is the Elizabethan among the composers, ranging over human feeling from the daintiest fancies to the deepest tragedy. Like the Elizabethans he made mistakes, and like them he may offend a fastidious taste by his exuberance. He is romantic too, and therefore offensive to the Great Solemn Ones of our day; but he is far to strong for any of them, and in his best works he climbs to the sublime heights that only the great can reach..

Since those days I have made enquiries among many sufferers from migraine to see if I can match my experience, but I have never succeeded in doing so. I have also asked among sundry colleagues, but none have met any similar phenomenon. Yet here is a little story about another kind of emotional experience, which does lend support to my tale.

Once upon a time there was a very pretty nurse at Orpington—I beg your pardon! I should say, Once upon a time, among the many pretty nurses at Orpington, there was one who suffered severely from migraine. Often at the musical evenings, which used to be such an admirable feature at that institution, my eye would fall upon that puzzled little face and I would wonder what lay behind it. Then, at length she returned to the parent hospital, where I met her by chance in one of the wards. The following little dialogue took place.

"I expect you will be leaving soon."
"Yes, in about three months."
"And what will you do then?"
"I am going to be married."
"Let me congratulate you. But how have your headaches been?"
"Since I have become engaged I have not had a single one!"

Another god this time had hit the gold with unerring arrow, not Apollo but Eros.

ACADEMIC

September		Exhibition. Surgical Department. "The Surgery of the Liver."
26th.	1.00.	Mr. Blackburn. Clinical Lecture.
28th.	4.30.	X-ray Meeting. Gordon Museum.
	5.00.	General Meeting. Pupils' Physical Society. Anatomy Theatre.
October		Exhibition. Surgical Department. "Research Conducted by the Department."
2nd.	1.00.	Dr. Marston. Clinical Lecture. "Obstetric Analgesia and Anæsthesia."
5th.	4.30.	X-ray Meeting. Gordon Museum.
6th.	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.

OTHER ENGAGEMENTS

September		
24th.	7.00.	Holy Communion. Hospital Chapel.
	10.45.	Harvest Festival Service conducted by the Rev. F. P. B. Ashe, M.A., St. Mark's, Kennington. Hospital Chapel.
30th.		Rugby 1st XV *v.* O. Whitgiftians. (S. Croydon).
		Rugby "A" XV *v.* Rochester. (H.O.P.).
October		
7th.		Rugby 1st XV *v.* U.S. Portsmouth. (H.O.P.).
		Rugby "A" *v.* U.S. Portsmouth "A". (Portsmouth).

GUY'S HOSPITAL DENTAL SOCIETY ANNUAL BALL.

The Ball will be held this year at the Grosvenor House, Park Lane, on Friday, 17th November, from 8 p.m. to 1 a.m. Evening dress and full buffet. Tickets, 25s. each single, may be obtained from Messrs. D.W. Thomas and M. S. Tyrell, the Honorary Dance Secretaries.

Antibiotics—Some Recent Advances

By R. E. IRVINE, M.B., M.R.C.P.

THE discovery of penicillin by Fleming in 1929 and its development as a therapeutic weapon ten years later by Florey opened up the new field of antibiotics which has already yielded a rich harvest. From moulds, fungi, bacteria and algæ about one hundred and fifty substances have now been isolated which will antagonise or destroy micro-organisms. Of these only four, penicillin, streptomycin, aureomycin and chloramphenicol (chloromycetin) have established themselves as essential therapeutic agents. A few others such as terramycin, bacitracin and the polymyxins may prove to have a place in clinical medicine. The majority are too weak, too unstable, or too toxic to be of any practical value.

This brief review is an attempt to discuss recent developments in the use of the four principal antibiotics, and to summarise the available information about some of the lesser known ones.

PENICILLIN.

Much research has been done on the problem of producing a preparation of penicillin that will spare the patient and his attendants the inconvenience of frequent injections.

Three lines of attack on this problem have been followed. Good results have been obtained for several years with the intramuscular or subcutaneous injection of large doses (250,000-500,000 units) of the ordinary salts of penicillin at six to twelve hourly intervals. It has been shown by Garrod (1950) that a dose of 500,000 units of penicillin given intramuscularly will produce, after an initial peak, a detectable, and with normally sensitive organisms, a therapeutic level in the blood for about eight hours. Moreover, it is known from the work of Eagle and Musselman (1949) that bacteria exposed to penicillin take up to four hours to regain their powers of growth, and there is some evidence that only actively multiplying bacteria are sensitive to the action of penicillin. There are thus good grounds for the practice of injecting 500,000 units twelve hourly. Bigger doses than this do not give a correspondingly longer period of action and it would seem that twice daily injections represent the limit that can be achieved by this method. The other advantage of this system of dosage is that the very high blood levels in the first two hours after injection enable the penicillin to diffuse into diseased areas such as abscesses and vegetations on heart valves, which might not be reached in effective concentration with the use of smaller doses.

Another approach to the problem has aimed at maintaining consistently higher blood levels of penicillin by blocking its excretion from the kidneys with such substances as caronamide. There has been a natural reluctance to employ widely a drug which even temporarily interferes with renal function, and nausea, skin rashes and albuminuria have been reported as toxic effects. Nevertheless, the method has occasionally proved life saving, particularly in those cases of bacterial endocarditis where the organisms have been resistant to normal concentrations of penicillin. The dose of caronamide is 9g. daily.

The third solution, and the one that seems likely to extend its already wide popularity, is the use of "depot" preparations designed to give a slow absorption of penicillin from the tissues over twenty-four hours or longer. The original "depot" preparations consisted of penicillin in a mixture of beeswax and arachis oil. These oil wax preparations required warming before administration and were therefore troublesome to give. They caused pain, induration and foreign body reactions at the site of injection, and allergic reactions were common.

It was a major advance when Sullivan (1948) reported that procaine and penicillin G could be made to react with the formation of a stable crystalline compound, procaine penicillin, which has proved to have the properties of a satisfactory "depot" preparation.

The crystals of procaine penicillin have been suspended in arachis oil and it is this oily preparation that is most widely used at present. It has been found that absorption can be still further delayed by the addition of a water repellent substance aluminium monostearate.

The crystals have also been suspended in water. Unfortunately there is not yet in this country a suspension of procaine penicillin in water which will keep for any length of time, and it is necessary to make up the aqueous suspensions freshly before use. When a stable ready-made aqueous suspension is available it will be a useful weapon, easier to give than the oily preparations, and the problem of cleaning the syringe after use will be simplified.

All the above preparations are made up in a standard strength of 300,000 units per c.c., and one c.c. daily is adequate for all minor infections, and in the majority of cases will cure gonorrhoea in a single dose. In more severe infections it is safer to give 450,000-600,000 units (1½-2 c.c.). Very large doses such as two million units of the monostearate preparations can produce a detectable blood level for as long as a week. This is not normally a desirable practice as the bulk of the suspension required is rather large, and therefore liable to cause pain.

These preparations produce a relatively low blood level for a long time, but it is possible to combine this " depot " effect with the intermittent high blood levels produced by soluble penicillin. Even so, no procaine preparation has been shown to be suitable for diseases such as bacterial endocarditis where it has been made clear that large doses of sodium penicillin of the order of 2,000,000 units a day given three-hourly for at least six weeks are essential if relapses are to be avoided.

There is little to choose in cost between procaine penicillin and ordinary penicillin; although procaine penicillin is a little more expensive, smaller total doses are needed.

There are no B.P. preparations of procaine penicillin, and it is still convenient to prescribe it by trade names. Avloprocil (I.C.I.) contains 300,000 units in one c.c. of arachis oil with two per cent of aluminium stearate added. Prolopen (Glaxo) is similar but with the addition of 100,000 units of soluble penicillin. Distaquaine (The Distiller's Company) is the name of an aqueous suspension. Distaquaine Fortified contains soluble penicillin as well.

Streptomycin.

The scope of streptomycin therapy is tending to be confined to tuberculosis as better antibiotics become available to control the other infections for which streptomycin was formerly indicated. Nevertheless, though far from satisfactory, it remains the best antibiotic for use in infections due to Pseudomonas pyocyanea and Proteus vulgaris.

The major advance in streptomycin therapy has been the discovery that when, in pulmonary tuberculosis, para-aminosalicylic acid (P.A.S.) is given concurrently with the antibiotic, the development of streptomycin resistant organisms is either prevented or postponed. This discovery, foreshadowed by the experimental work in America of Bloch and others (1949) was first shown to work in human pulmonary tuberculosis in this country by the Medical Research Council (M.R.C. 1949). The P.A.S. is thought to work by suppressing those few tubercle bacilli in any bacterial population which are naturally resistant to streptomycin. Recent work in Scandinavia has shown that resistance also develops to P.A.S. After six months of P.A.S. therapy, Carstensen and Anderson (1950) report that half their patients are resistant to P.A.S. Intermittent short courses of streptomycin do not alter the resistance to P.A.S. It, therefore, remains of great importance that whatever form of chemotherapy is employed in tuberculosis, it should not be given speculatively but as part of a coherent therapeutic plan.

The solution to the problem of bacterial resistance in tuberculosis seems likely to be solved by further work on the combined effects of antibiotic and chemotherapeutic agents. Before this was discovered valuable work was being done on the usefulness of intermittent instead of continuous daily dosage

with streptomycin. Tucker (1949) in America found that one gramme of streptomycin given every third day caused a postponement of the time when resistant strains began to appear; unfortunately there was some loss of therapeutic efficiency on this regime. The Medical Research Council (1950) studying a series of cases in which the drug was given for alternate weeks or alternate months found that this method of intermittent dosage did nothing to delay streptomycin resistance, but was therapeutically as effective as continuous daily dosage. General experience seems to point to six to eight weeks of continuous treatment with 1g. daily of streptomycin as the optimum course for most forms of tuberculosis. Serious toxic effects are unlikely before the end of two months with one gramme dosage, and even without P.A.S. three patients out of four will still have sensitive organisms at the end of this time.

In tuberculous meningitis, matters are quite different. Large doses for six to nine months are essential. Resistance occurs seldom. A valuable adjuvant measure has recently been reported from Oxford by Smith and Vollum (1950) who found that the intrathecal administration of minute amounts of tuberculin has led to the improvement of some seemingly hopeless cases. One good effect of the tuberculin is the destruction of the dense exudate that shields the tubercle bacillus from the action of streptomycin in the subarachnoid space. The authors warn that its use is very dangerous and should be reserved for hopeless cases.

The toxic effects of streptomycin have themselves been turned to good account by Fowler (1948) in the treatment of Menière's disease. He gave four grammes daily for about a week in an attempt to perform a chemical destruction of the labyrinth, and his results have been confirmed in this country. The labyrinth is destroyed and the hearing is but little affected. This is in contrast to the accepted surgical methods of destroying the labyrinth which produce deafness as well. Surgery is still preferable where one labyrinth only is affected, but where both are causing vertigo streptomycin may be expected to help. It should be given only where facilities for daily caloric testing are available to measure the degree to which the vestibule is being damaged and the patient should be under fifty years of age. The vestibules partially recover in about six months and the vertigo does not always return.

Aureomycin and Chloramphenicol (Chloromycetin).

These two antibiotics were discovered in 1947. They are both products of actinomycetes moulds found in the soil. Aureomycin was isolated from Streptomyces aureofaciens and chloramphenicol from a mould which was subsequently named Streptomyces venezuelæ. It was less than two years later that the synthesis of chloramphenicol was achieved (1949). The synthetic product is identical with the natural one and is the only antibiotic to be synthesised so far.

Both aureomycin and chloramphenicol are bacteriostatic rather than bactericidal. They each have a wider range of activity than any other antibiotics known, and bacteria seldom acquire any important degree of resistance to them. Both are active against gram positive bacteria including staphylococci, streptococci and pneumococci : and against gram negative organisms including the coliforms, the dysenteric organisms, the hæmophilus, brucella and salmonella groups. Aureomycin and chloramphenicol are active against the rickettsiæ and against certain of the larger viruses, including those of virus pneumonia, herpes zoster, herpes simplex, psittacosis and lymphogranuloma inguinale. Protozoa also are susceptible. Aureomycin is curative in acute amœbiasis and has some effect upon experimental malaria.

These antibiotics have little or no effect upon the tubercle bacillus, the diptheria bacillus, or the clostridia of tetanus and gas gangrene. They are of limited and inconstant value against Proteus vulgaris and Pseudomonas pyocyanea. Many of the smaller viruses including those of mumps, influenza, the common cold, glandular fever and poliomyelitis are not susceptible.

Aureomycin is more effective than chloramphenicol in all gram positive infections, in meningococcal meningitis, in gonorrhœa and in syphilis. Unless the organism is resistant, however, penicillin is still preferred in these conditions, both on the score of economy, and on account of its slightly greater antibacterial power.

Against the majority of gram negative organisms the power of aureomycin and chloramphenicol is about equal to that of streptomycin, but as bacterial resistance develops seldom, these new drugs are more reliable. Against the salmonella group chloramphenicol is the drug of choice and aureomycin is ineffective. Aureomycin readily penetrates the blood-brain barrier and is suitable for use in influenzal meningitis.

Both drugs are specific in rickettsial infections, though aureomycin seems to be rather more effective in Q fever, and chloramphenicol in scrub typhus.

In the virus diseases which they influence there is little, so far as is known, to choose between them. Both drugs are compatible with the sulphonamides, penicillin and streptomycin.

Dosage.

Both aureomycin and chloramphenicol are supplied in capsules containing 250 mg. Aureomycin, but not chloramphenicol, is also supplied in ampoules of 100 mg. for intravenous injection. Neither drug should be given intrathecally or into joint cavities or serous sacs.

The dosage of aureomycin is 30 mg. per kilo of body weight. This is equivalent to 2 g. daily for the average adult and should be given in 500 mg. doses or two capsules every six hours.

In very severe infections the maintenance dose should be doubled and 1 g. or four capsules given six-hourly. In addition a loading dose of 1 g. should be given at the outset of treatment.

If oral administration is impossible the intravenous route may be used. Not more than 300 mg. should be given in any one dose, and doses can be given eight-hourly. Venous thromboses are very likely to occur and oral treatment should be begun as soon as possible.

The dose of chloramphenicol is approximately twice that for aureomycin. The daily dose is 60 mg. per kilo of body weight which is equivalent to 3-4 g. daily. This is given as 0.75-1 g. (three or four capsules) six-hourly. A loading dose of 3-4 g. should also be given at the outset of treatment in all cases. In very severe infections the maintenance dose may be doubled. Chloramphenicol cannot be given intravenously.

Duration.

If the antibiotic is going to work, clinical improvement and a fall in the temperature will be seen in two to three days and often within a few hours. It is useless to persist more than four days if there is no clear improvement in the patient. The drug should be continued at half the initial dosage for one or two days after the temperature returns to normal, but even in typhoid it is seldom necessary to give it for more than ten days.

Toxic Effects.

These are not serious. Nausea, vomiting, sore mouth and diarrhoea are seen with both drugs. The first two are due to the direct instant action of the drug on the stomach and may be migitated by giving the drug when the stomach is full, and by giving 2 dr. of aluminium hydroxide with each dose. The diarrhoea is due to the change in intestinal flora.

Skin rashes may occur with either drug and granulocytopenia is reported after chloramphenicol.

Indications.

The principal indications for aureomycin and chloramphenicol are summarised in the following table. These indications are becoming clearer but must still be regarded as provisional and liable to change.

PRINCIPAL INDICATIONS FOR AUREOMYCIN AND CHLORAMPHENICOL.

Aureomycin or Chloramphenicol	Aureomycin	Chloramphenicol
Bacterial	*Bacterial*	*Bacterial*
Gram -ve urinary infections	Penicillin resistant coccal infections	Typhoid
Whooping Cough	Influenzal meningitis	Paratyphoid
Brucellosis	Weil's disease	Salmonella septicæmia
Friedlander's pneumonia		
Rickettsial	*Rickettsial*	*Rickettsial*
Epidemic typhus	Q Fever	Scrub Typhus
Virus	*Virus*	
Virus pneumonia	Lymphogranuloma inguinale	
Herpes zoster		
Herpes simplex		
Psittacosis		

Based on Perrin H. Long (1950) *Pennsylvania Med. J.*, 53, 209.

It would seem likely that those infections listed in column 1 as being equally well treated by either group will ultimately fall to the care of chloramphenicol which, if it remains the only synthetic antibiotic, is likely before long to become cheaper than auroemycin.

The Choice of Antibiotic.

Respiratory Infections.

If the supply becomes plentiful and the drug becomes cheaper it is probable that aureomycin will become the drug of choice for the treatment of pneumonia. The fact that it can be given by mouth makes it suitable for use in the patient's home, and its wide range of antibacterial action means that it is active against all the commoner bacterial, and most of the rare virus causes of pneumonia. At present, however, penicillin and the sulphonamides remain the treatment for routine use.

Aureomycin is of value in acute upper respiratory infections including sinusitis. Both aureomycin and chloramphenicol have been shown to shorten the duration and severity of whooping cough. As pertussis is now, especially in small babies, the most serious common fever of childhood, the value of this therapeutic advance is considerable, though the giving of this very bitter powder to small babies presents a difficult practical problem.

Both aureomycin and chloramphenicol have been reported as effective in the acute laryngotracheobronchitis of children, a disease resistant to other antibiotics and frequently fatal.

Urinary infections.

Both aureomycin and chloramphenicol are concentrated in the urine up to a hundred times their level in the blood and good results have been reported, particularly with aureomycin. Bacterial resistance is rare and the drug can be given repeatedly in chronic cases if necessary. Neither drug is, however, the perfect antibiotic for urinary infections because Proteus and Pseudomonas pyocyanea are usually insensitive and it is just these two organisms which so often persist in the urine after the exhibition of the sulphonamides and streptomycin. Sulphonamide is still the first drug to try in urinary infection.

Venereal infections.

The place of aureomycin and chloramphenicol is not yet established. The evidence of their use in venereal infections in America has been well reviewed by

Robinson (1950). Both drugs have some action on all the venereal diseases, syphilis, gonorrhoea, lymphogranuloma inguinale, granuloma inguinale and soft sore. Chloramphenicol has much less activity against the spirochæte than aureomycin, and aureomycin is itself less powerful in syphilis than penicillin. There would seem no doubt that penicillin remains first choice for the treatment of syphilis.

In gonorrhoea the effect of the two new drugs is about equal. Good results have geen reported with single doses of 1-3 g. of aureomycin, or of chloramphenicol. With neither drug were the results better than with the use of a single injection of 100,000 units of procaine penicillin (a dose one third of that customarily employed in this country). It has been suggested that as chloramphenicol has a weaker antisyphilitic action than penicillin or aureomycin it may be valuable in gonorrhoea because it is less likely to mask concurrent syphilis. However, both sulphonamide and streptomycin are better for this purpose, so there would not appear to be any good reason to employ the newer antibiotics in gonorrhoea until penicillin, sulphonamide and streptomycin have failed.

In lymphogranuloma venereum (lymphogranuloma inguinale), a virus infection, aureomycin has given good results but chloramphenicol has been disappointing.

In granuloma inguinale, a venereal disease due to Donovan bodies, both new antibiotics are effective, but streptomycin is regarded as the drug of choice.

In chancroid no antibiotic is superior to sulphonamide.

Brucella infections.

The more chronic forms of brucellosis have proved resistant to many chemotherapeutic and antibiotic substances. Streptomycin combined with sulphadiazine has had considerable success but also several failures. Aureomycin and chloramphenicol have both proved outstandingly effective in the more acute forms, especially in Malta fever. In the more chronic cases also good results have been reported but success has not been uniform. For good results it is recommended that full dosage be maintained for seven days after the temperature falls to normal, and it is probable that sulphadiazine should be given at the same time.

Enteric infections.

The original trials of chloramphenicol in typhoid were made in Malaya by Woodward, Smadel and their colleagues (1948). The brilliant results they obtained have been confirmed all over the world and the Crowthorne epidemic in 1949 provided the first opportunity for the drug to be used in this country.

The initial success in typhoid was marred in a number of cases by relapse. Smadel (1949) has studied this problem and reports that relapses can be prevented if treatment is prolonged for ten to fourteen days. The dosage schedules have been simplified as a result of his work and the dosage now recommended is as follows. An initial dose of 4 g. is given. This is followed by 3g. daily given as 1.5 g. twelve-hourly until the temperature settles (usually a matter of three to five days). The dosage is then halved and 0.75 g. is given twelve-hourly for a week.

The toxic signs disappear sooner than the local, and both the major complications of hæmorrhage and perforation have been reported in patients rendered afebrile by chloramphenicol.

An interesting point and one that has been widely confirmed, is that chloramphenicol is useless in the treatment of typhoid carriers. This is thought to be due to the fact that the drug is conjugated in the liver and excreted into the bile in an inactive form. The carrier who harbours the organisms in his gall bladder is thus unaffected by chloramphenicol. The best medical treatment for typhoid carriers is the combination of large doses of sulphadiazine and penicillin. Eventual cholecystectomy is still sometimes necessary.

In paratyphoid the results are more variable and it has been suggested that larger doses should be given than is customary in typhoid.

Aureomycin is not effective in the enteric infections.

Rickettsial infections.

The antirickettsial properties of chloramphenicol and aureomycin seldom concern us in this country, but the civilian and military importance to the world at large of two drugs which control epidemic typhus and scrub typhus can hardly be exaggerated. 3-6 g. of chloramphenicol given as a single dose or over twenty-four to forty-eight hours has been shown by Smadel (1949), and Giles and Symington (1949) to be curative in scrub typhus. Similar cures of epidemic typhus in three or four days are reported with chloramphenicol by Smadel (1948) and with aureomycin by Schoenbach (1949).

The only rickettsial infection occurring in this country is Q fever. This is a great rarity here but it not uncommon in America. Lennette (1948) first reported the good effects of aureomycin, and it has been confirmed that aureomycin is better than chloramphenicol for this condition.

Other Antibiotics.

Terramycin is a new antibiotic prepared by Finlay (1950) from Streptomyces rimosus. Its general properties are said to be very similar to those of aureomycin, but it is more slowly excreted. It is given by mouth. It is too early yet to say what its place will be in therapeutics.

Bacitracin was prepared from B. subtilis by Meleney. It has a wide antibacterial spectrum and has been successfully used locally and by injection against penicillin resistant organisms, and by mouth in the treatment of amœbic dysentry. It has been used empirically and with variable effect in a few cases of ulcerative colitis. It has nephrotoxic effects which are likely to preclude it from becoming an important antibiotic.

Neomycin was discovered by Waksman in 1949. It is the product of Streptomyces fradiae. Its range of activity resembles that of streptomycin; in particular it is active against tubercle bacilli including those resistant to streptomycin. Rapid resistance to neomycin does not develop as it does to streptomycin. This new drug is toxic to the kidneys and whether it will prove safe enough for clinical use remains to be seen.

The Polymyxins are various products of Bacillus polymyxa. They are effective against many gram negative organisms and are the only antibiotics with a consistent inhibitory effect against Pseudomonas pyocyanea.

Given by injection the polymyxins have a toxic effect on the kidneys and nervous system; if given by mouth they are not absorbed and sterilise the intestinal contents. If their toxity can be overcome, they may find a place in gram negative urinary infections, especially if Ps.pyocyanea is present. There may also be a use for the polymyxins in the local treatment of gram negative wound infections.

Conclusion.

The field of antibiotics is a subject which is changing constantly. The bulk of what has been written is derived from American experience and has yet to be confirmed in this country. The battle between pathogenic micro-organisms and the weapons pitted against them is not likely to be static, and we may ultimately see, as is already beginning to happen with penicillin and streptomycin, the evolution of resistant strains of bacteria which will render useless our present antibiotics and create a continual need for new ones.

Suggestions for further reading.

Antibiotics. By W.H. Florey and others. O.U.P. (1949). This is the standard book of reference. Two volumes are already published and one is yet to come.

The Administration of Penicillin. By L. P. Garrod. *Brit. Med. J.*, 1950 2, 453.

Evaluation of Streptomycin Regimens in the Treatment of Tuberculosis. By W. B. Tucker (1949) *Amer. Rev. Tuberc.* 60 715.

Experimental Background and Clinical Use of Antibiotics. By Perrin H. Long, E. A. Bliss, E. B. Schoenbach, E. A. Chandler and M. S. Bryer. *Lancet*, 1950 i, 1139.
An extremely valuable paper on antibiotics in general by the team that has done a great deal of work with aureomycin.

The Chemotherapeutic Treatment of Typhoid—Leading Article in *Brit. Med. J.*, 1949 2, 918.

Retirement of Mr. Philip Turner

The Joyce Green Hospital Social Club held a dance at the hospital on Monday, 31st July, to honour Mr. Philip Turner on his retirement from the staff after ten years as Senior Surgeon. Many former members of the medical and nursing staff, including Sir Heneage and Lady Ogilvie, and Mr. and Mrs. Eckhoff, came to bid Mr. Turner farewell. Dr. M. Mitman recalled that Mr. Turner had completed a successful career at Guy's as a surgeon and teacher when the war brought him back to active practice. He served first at Pembury and then at Joyce Green. Dr. Mitman said that the qualities which made Mr. Turner such an outstanding personality were his professional stature, his perennial youth and his loyalty. Mention was made of his close association with the Social Club, of which he was the Peter Pan. Dr. J. Pickford Marsden, an ex-patient, added his tribute on behalf of himself and other sick staff to whom Mr. Turner had been surgeon for ten years.

Dental Appointments

On and after Monday, 2nd October, an appointment system will be in operation for all patients requiring Dental Specialist consultation or treatment in the Dental Department of the Hospital. All Medical and Dental Practitioners requiring appointments for their patients are requested

1. To telephone for an appointment, H.O.P. 3500, Dental Department Appointments. (Extensions 281—288).

OR

2. Write to the Dental Appointments Clerk for an appointment, stating the nature of the dental condition.

OR

3. Instruct the patient to telephone, write or call, and make an appointment through the Dental Appointments Clerk.

In every case, the patient must produce a letter of introduction and any relevant records from the Practitioner.

It is stressed that this service is for specialist requirements and NOT for routine conservative or extraction operations which will continue to be seen in the normal Out-patient service.

Obituary

ARTHUR ROBERT CROWE.

Mr. A. R. Crowe, L.D.S.Eng., who died at Bedford suddenly, was a student at Guy's Hospital. At the outbreak of the 1914 war, he joined up with the Artist Rifles and served with the forces in France through the war. The service prefix, which is by tradition associated with his name, became his, and throughout his life he was known to his friends as Jimmy Crowe. The name signified the man, friendly, unostentatious, hard working. After obtaining his L.D.S. he followed general practice in Dorking, in Cambridge and then in Bedford. He was a careful and competent practitioner, greatly beloved by his patients. Always keenly interested in the wider work of his profession, he was, at the time of his death, engaged in organising a Bedford Section of the local Branch of the British Dental Association. The death of Mr. Crowe, at the age of 59, will be mourned by all who knew him ; he leaves a widow and two sons.

F.N.D.

POSTAL PERPLEXITY

A letter, bearing the following address, was recently posted at N.W.1. By the resources of the Post Office—and the Superintendent's Office at Guy's, it reached its destination :—

Christian name of " shot apple on head." Surname of " saw apple fall."
There's one at Ilkley before " head."
" Married Douglas Fairbanks "—" Makes barrels "—" In Chancery,"
" Burnt on Bonfire Night,"
London Bridge.

Correspondence

Biennial Dinner

SIR,—I have received a notice in regard to the Biennial Dinner to be held on Friday, 6th October, 1950. I appreciate very much receiving this notice even though the sponsors may think my chances of attending extremely remote. This naturally applies to all old Guy's men now abroad.

It has struck me more than once that the time of the year virtually precludes any overseas Guy's men from attending. October has become an established time for holding this dinner, but would much heartburn be caused if it were held in say May or June?

Those of us who manage a visit to our Alma Mater once in a decade always return home feeling that, despite the pleasure of visiting the old haunts the big thrill of a Guy's assembly has been lost—and who will deny that of all re-unions there is nothing quite like the traditional dinner?

It would be of interest to hear the views of other old Guy's men similarly situated.

Yours, etc.,

17 Church Square,
Cape Town.

R. HOFMEYR.
(1919—1923)

The Physical Society

SIR,—The Pupils' Physical Society, founded in 1771, is the only society of its kind in the country. It exists to enable the student body to present and discuss cases of clinical interest with one another. It is essentially a student organisation and depends for its continued existence on the enthusiasm of the students themselves.

During the last season the response was negligible and as a result, with two exceptions, the society's meetings were a series of fiascos.

It is proposed to hold a General Meeting on Thursday, September 28th, at 5 p.m. in the Anatomy Theatre, when it is hoped that a large number of people will be present in order to discuss the future of the society.

Yours, etc.,

J. D. TROUNCE.
H. P. GUERRIER,
Honorary Secretaries.

"Baker"

SIR,—You may remember that in July I wrote a letter inviting contributions to a farewell gift for Baker. I propose closing this subscription list at the end of the month and I should be very grateful if you could insert some small notice in the *Gazette* to the effect that any further subscriptions to this fund should be sent to me here, before that date. I have received over £50 but I feel there must be still a number of old Guy's men who would like to remember Baker.

Yours, etc.,

Physiological Laboratory,
Guy's Hospital.

W. R. SPURRELL.

DIAGNOSTIC X-RAY MEETINGS IN THE GORDON MUSEUM

These meetings are held every Thursday at 4.30 p.m. in the Gordon Museum. They are primarily intended for House Officers and Post-Graduates and their object is the discussion of current radiological material, so that the best use can be made of the various special X-ray investigations whose scope is not always appreciated.

It is, therefore, hoped that House Officers will attend with the films of their own cases.

T. H. HILLS,
Director of the Department of Diagnostic Radiology.

Sport

CRICKET

Guy's *v.* Merstham

At Merstham. *Result*—Won.

8th August, 1950.

Guy's 166. Merstham 107.

Guy's

D. M. E. Allen, b. Earl	38
J. F. Woodford, c. Raven b. Bailey	12
P. Saville, b. Earl	0
P. L. Pickett, b. Raven	36
A. G. Prince, b. Earl	10
P. Lansdowne, l.b.w. Raven	1
H. Bissoon Dath, c. Law b. Bailey	40
D. Hall, b. Raven	0
A. d'A. Fearn, run out	5
F. Trist, c. Law b. Raven	0
W. Birch, not out	0
Extras	24
Total	166

Bowling : P. L. Pickett, 18-2-4-40.
J. F. Woodford, 14-3-5-33.

HOSPITALS CUP
SEMI-FINAL

Guy's *v.* St. Mary's

2nd replay.

Result—Draw.

Guy's 236-5. St. Mary's 195-7

Guy's

D. E. Blake, st. b. Garnham	123
D. M. E. Allen, c. Simmons b. Thompson	56
A. G. Prince, b. Garnham	12
A. F. Jones, b. Thompson	8
W. S. Jowells, not out	30
H. R. Prentice, st. b. Speight	4
D. M. Lipington did not bat	
M. C. Gilbert ,,	
S. S. R. Earl ,,	
T. Smith ,,	
W. Tweed ,,	
Extras	3
Total	236

St. Mary's won the toss and put Guy's in to bat. Rain delayed the start until 2.20 and a new wicket had to be prepared before play could begin.

Blake and Allen wasted no time in getting runs, and the 100 was up in fifty minutes. The proceedings were enlivened all the more when Allen hit two sixes in one over. But Blake was always scoring slightly faster, making runs in all directions in faultless style.

140 was on the board before the first wicket fell, and with this start it was just a question of getting runs as quickly and decently as possible.

Howells allowed himself an over or two to have a look at the ball, then took every run offered, getting his thirty in thirty minutes.

Guy's declared at 4.30, giving Mary's exactly as long to get the runs. They were not so quick to score, and their wickets fell at regular intervals. Davidson, No. 6, speeded the score along with a couple of sixes, but though they tried for the runs, the clock kept in front. Kelleher, batting No. 9 with Garnham, scored freely with nine boundaries in his 47 not out and they both stayed the remaining forty minutes to bring matters to an unconcluded end !

RUGBY FOOTBALL

Guy's *v.* Catford Bridge

At H.O.P. *Result*—Won 9—8.

16th September, 1950.

In the first home match of the season Catford Bridge scored a goal and a penalty goal in the first twenty minutes.

Guy's, after a very ragged start—particularly amongst the half-backs and three-quarters—were, shortly before half time, given one penalty beneath the Catford Bridge posts that was accepted and another, only a few yards further away, that was not, when two forward rushes found some of their opponents off-side.

In the second half Guy's were more coherent behind the scrum and Beresford broke from a scrummage on "the twenty-five" to put Davies over in the corner for a try, which was unconverted. Shortly after this the Catford Bridge back fielded a missed penalty and kicked for touch, but instead found Howells, who dropped a magnificent goal from near the half-way and side-lines.

The last few minutes saw both sides near to "going over" and the game finished when Catford Bridge missed, by only a whisker, a forty yard penalty, that would, for them, have been "a winner."

Team : W. J. Howells ; K. P. Walker, T. Smith, E. S. P. Williams, W. Birch ; G. A. E. Baker, G. Beresford ; H. Riddolls ; D. Clarke ; J. Kirkbride ; C. Pook ; C. T. M. Wilson ; P. Rademan ; W. G. Davies (Capt) ; T. G. L. Bellis.

A hearty invitation is extended to all Old Guy's men to renew old acquaintanceships and to support the Rugger team at Honor Oak Park during the forthcoming season.

GOLF SOCIETY

The Summer Meeting was held at Royal Blackheath Golf Club on Wednesday, September 6th. There was a good entry and the Staff Cup was won by F. M. D. Grant with a score of 69.

Results.

J. M. D. Grant	71—2	69
D. Cliffe	88—18	70
M. J. Quelch	90—18	72
R. S. Wells	92—18	74
B. Jackson	95—18	77
W. Vans Agnew	89—12	77
L. Balfour-Lynn	97—18	79
M. H. H. Bishop	92—10	82

Hospital Information, etc.

APPOINTMENTS VACANT

GUY'S HOSPITAL DENTAL SCHOOL

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence duties in November, 1950:

Casualty Department. 1 Registrar for attendance on 5 sessions a week.

Conservative Dental Surgery. 2 Registrars to attend on 3 sessions each per week.

Dental Department for Children. 1 Registrar for attendance on 6 sessions a week.

Salary in each case will be at the proportionate rate of £775 per annum in the first year. The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1., to whom applications should be sent not later than **Tuesday, 17th October, 1950.**

GUY'S HOSPITAL

Applications are invited for the post of **Resident Medical Officer in Nuffield House,** duties to commence on October, 7th, 1950. Grading Junior Hospital Medical Officer, commencing salary £700 per annum. Appointment for a period of six months in the first instance. Applications, with copies of testimonials, should be lodged with the Superintendent, Guy's Hospital, S.E.1., on or before **October 2nd, 1950.**

York Clinic for Psychological Medicine. Required, **Resident House Physician,** duties to commence as soon as possible. Appointment for six months in the first instance, and may be renewed for further such periods. Post offers good opportunities for post-graduate study. Salary in accordance with the Terms and Conditions of Service for House Officers in the National Health Service. Applications, with copies of two testimonials, should be sent to the Superintendent, Guy's Hospital, London Bridge, S.E.1., on or before **October 2nd, 1950.**

GUY'S HOSPITAL AND MEDICAL SCHOOL

Applications are invited for the post of **Dermatological Registrar (part-time).** Duties to commence as soon as possible, for one year only. Salary at the proportionate rate of £775 per annum with attendance on 7 sessions per week, in accordance with National Health Service Terms, and Conditions of Service. Application forms may be obtained from the Dean, Guy's Hospital Medical School, S.E.1., to whom completed applications together with the names of three referees must be forwarded not later than **27th September, 1950.**

APPOINTMENT

J. R. D. Williams, M.B., B.S., D.P.H., appointed Assistant Venereologist at Ipswich, Bury St. Edmunds and Lowestoft, East Anglian R.H.B.

PAPERS BY GUY'S MEN

Allsopp, C. B. and another. The Toxicity of a Product of Reaction of Mustard Gas with Serum Proteins. *Brit. J. Exp. Path.*, 1950, **31**, 258.

Allsopp, C. B. and Stanford, R. W. To See More and to See It Better. *Brit. J. Radiol.*, 1950, **23.**

Baker, David. Amateur Replantation. *Brit. Dent. J.*, 1950, **89**, 133.

Braithwaite, J. Vernon. Enuresis in Childhood. *Practitioner*, 1950, **166**, 273.

Burn, J. H. and others. Adrenaline and Noradrenaline in the Suprarenal Medulla after Insulin. *Brit. J. Pharmocol.*, 1950, **5**, 417.

Burn, J. H. and others. The Formation of Noradrenaline from Dihydroxyphenylserine. *Brit. J. Pharmocol.*, 1950, **5**, 431.

Crisp, E. J. Discussion on Significance of Congenital Abnormalities of the Lumbosacral Region. *Proc. Roy. Soc. Med.*, 1950, **43**, 640.

Ellerker, A. R. Decamethonium Iodide as a Curarizing Agent in General Anæsthesia. *Brit. Med. J.*, 1950, ii, 398.

Evans, T. J. A Review of Pease's genus *Volvatella*, together with a Preliminary Report on a New Sacoglossan Genus. *Proc. Malacol. Soc.*, Lond., 1950, **28**, 102.

Gordon, J. A Simple Resuscitator. *Anæsthesia*, 1950, **5**, 158.

Hallpike C. S. and another. Clinical and Pathological Observations in a Case of Leukæmia with Deafness and Vertigo. *J. Laryngol. Otol.*, 1950, **64**, 427.

Hills, T. H. Mechanical and Physical Problems of Angiocardiography. *Brit. J. Radiol.*, 1950, **23**, 279.

Johns, S. P. A Case of Costen's Syndrome. *Brit. Dent. J.*, 1950, **89**, 105.

Leatherman, G. H. Oral Hygiene. *Brit. Dent. J.*, 1950, **89**, 119.

Mackeith, R. C., with Addiscott, Elizabeth, and Brotherston, J. H. F. Origins and Outcomes of the Patient's Stay in Hospital. Report on a Project of Teaching Social Medicine. *Lancet*, 1950, ii, 320.

Parry, T. G. Wynne. Cataract. *Med. Pr.*, 1950, **224**, 250.

Payne, W. W. Electrolytic Misadventures in Infancy. *Proc. Roy. Soc. Med.*, 1950, **43**, 616.

Rink, E. H. Anæsthesia for Cardiac Surgery A Lecture delivered at the Royal College of Surgeons. *Annals R. Coll. Surg.*, Eng., 1950, **7**, 151.

Robson, J. M. and others. Chemical Constitution and Hormone Activity: Some Analogues of Triphenylethylene. *Brit. J. Pharmacol.*, 1950, **5**, 376.

Shuttleworth, C. W. The Diffusion of Penicillin from the Dental Root Canal. *Brit. Dent. J.*, 1950, **89**, 127.

Suzman, S. The Diagnosis and Treatment of Cardiac Pain: II. *Med. Pr.*, 1950, **224**, 146.

Worster-Drought, C. Penicillin in Neurosyphilis. *Brit. Encycl. Med. Pract., Int. Suppl. No.* 96 (*Sept.* 1950) p.10.

SOCIETY OF APOTHECARIES OF LONDON

At a recent meeting of the Court of Assistants the following were clothed with the livery of the Society

H. A. Treble. P. C. Alexander. Guy Blackburn

The following were admitted to the freedom of the Society by redemption

P. L. Blaxter — T. S. Leedham
A. M. Hutton — N. L. M. MacManus
P. J. Helliwell.

Examiner

Mr. Guy Blackburn was sworn in an examiner in Surgery.

MEDICAL RESEARCH COUNCIL

The Council have made the following travelling awards for the academic year 1950-51 :—

Rockefeller Travelling Scholarships in Medicine.

Dr. R. V. Coxon, Betty Brookes Fellow, Department of Biochemistry, Oxford University.

Dr. E. A. Wright, Junior Lecturer in Pathology, Guy's Hospital.

UNIVERSITY OF LONDON

Readership

Dr. W. L. G. Gent has been appointed to the Readership in Physical and Inorganic Chemistry tenable at Guy's Hospital Medical School from 1st October, 1950.

PASS LIST

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

Membership

H. F. Hills — H. A. Rowley

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.R.C.S

Primary Examination

B. V. McEvedy — B. H. Pentney

SOCIETY OF APOTHECARIES OF LONDON

Final Examination.

August, 1950.

Surgery.

H. G. Hexter.

Midwifery.

I. J. P. Woodhouse.

UNIVERSITY OF LONDON

Second Examination in Dental Surgery : Part I July, 1950.

L. J. Cheeseman — D. C. A. Picton
M. W. Cooksey — P. S. Smith
Helen C. Cummins — D. J. Wicker
D. P. Fawkner — P. J. Willard
I. M. Hauldren

Second Examination in Dental Surgery: Part II July, 1950.

E. J. Artes — G. Maggs
A. Gibson — R. H. Pownall
G. L. Hunter — N. H. Reeves
D. H. MacLeod — R. W. Willcocks

UNIVERSITY OF LONDON

Special First Examination for Medical Degrees June, 1950.

H. B. Anstall — S. M. Kanaar
J. C. Anthony-Davies — D. A. Lambert
A. H. Atkinson — J. D. Lane
M. J. Atwill — J. S. Lee
G. C. W. Baker — M. A. C. Lyon
J. Barrie — I. S. MacDougall
Margaret A. Barrie — C. B. G. Major
I. M. Briggs — J. Metcalfe
Margaret E. Broughton — J. S. B. Meyer
Gillian M. Cann — J. D. Miller
J. A. Cox — C. M. Montegriffo
P. L. Cumming — Ignace J. M. Y. Nalletamby
J. G. Davies — M. J. O'Brien
J. M. P. Davies — R. Palmer
M. H. Evans — J. G. Parkes
L. W. S. Eyears — Iris C. Platt
Verna P. Firth — M. J. N. Segerdal
D. C. Gill — D. J. Veale
G. C. Gould — P. J. Wege
M. S. E. Gould — K. P. R. Wellham
A. N. Greenwood — K. Wilderspin
M. Ibrahim — P. E. Williams
G. A. Irving — T. M. Winstanley
J. N. James — John Wolfle
G. B. C. Jones

The following Candidates have completed the First Medical Examination :—

C. M. G. Buttery — J. S. M. Zorab
M. D. A. Vickers

UNIVERSITY OF LONDON

General First Examination for Medical Degrees June, 1950.

T. Z. Carrasco

CHANGES OF ADDRESS

D. R. Hynes, S.R.N., S.C.R.N., Jaunweg 14, Berne, Switzerland.

P. A. J. Smith, M.B., B.S., Department of Dermatology, University Hospital, Minneapolis, Minnesota, U.S.A.

Lieut. J. D. Williams, R.A.M.C., British Military Hospital, Bowen Road, Hong Kong, China.

D. Spencer Wilson, L.D.S., R.C.S., c/o Barclays Bank (D.C.O.) Carlisle, Cumberland.

MARRIAGES

BULLEID–CLARKE.–On August 22nd, 1950 at St. Mary Magdalene Church, St. Leonards on-Sea, John Bullied, M.B., B.Ch., son of Mr. and Mrs. W. A. Bulleid of Stevenage, Herts, to Jeanne Clarke, younger daughter of the late Mr. R. W. Clarke and Mrs. Clarke of St. Leonards-on-Sea, Sussex.

SUTTON—EDELSTEN.—On September 2nd 1950, at Wonston Parish Church, Paul Stanley Sutton, L.D.S., R.C.S.(Eng.), son of the late Mr. W. S. Sutton and Mrs. Sutton of Horsham, Sussex, to Anne Margaret, daughter of Dr. and Mrs. G. M. M. Edelsten of Sutton Scotney, Nr. Winchester, Hants.

WHITBY—KEANE.—On Tuesday, August 29th, 1950, at St Augustines, Tunbridge Wells, Geoffrey W. Whitby, Isle of Man, to Dorothy (Paddy) Keane, S.R.N., S.C.M.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1623 *7th October, 1950* *Ninepence*

PASSIM

WHEN General Smuts died the British Commonwealth lost a great friend and a wise councellor. His influence upon the affairs of nations was powerful. Big decisions within the Empire were seldom taken without his advice. He was one of the few true " Statesmen " of this century. Yet great as was his position in World Politics, powerful as was the authority with which he spoke, his influence came in the end, not from his political position but from the quality of his character. Courage, strength, breadth of vision, simplicity and, most rare, wisdom ; all these were to be found in him. In moral stature he towered over his contemporaries, in leadership he had few equals, in strength of purpose none had more tenacity . The study of any man of parts such as these must be rewarding and if, as we believe, philosophy provides a constant source of inspiration to medicine, then medicine can do no better than study the philosophy of Jan Christian Smuts.

The principle of Smuts' philosophy was " *Holism.*" A principle, as Lord Samuel expressed it that " throughout the universe, in all manifestations of matter, life and mind, there is at work an impulse which tends to the development of " wholes," that the whole is always more than a mere sum of the parts ; and that science which divides and sub-divides and forever analyses, may in the process lose sight of the true essence." The man who helped to bring South Africa into the British Commonwealth, who helped to plan the League of Nations and the United Nations, who championed Zionism, who led his country into battle along side of the Western Democracies, this man may justly be said to have carried his principles into practice.

In the practice of medicine, as the field for investigation becomes wider and wider, as technology becomes more and more an essential part, it is inevitable that there should be greater and greater specialisation. Without it the speed of progress would be slowed. One hears much talk of " over specialisation." The danger, surely is narrowness of outlook not specialisation of practice, for concentration of effort is essential to scientific progress and specialisation is no more than concentration. Nor indeed is the danger likely to be great if " holism " should be the philosophy of the specialist. Nowadays all are specialists—the clinician, the pathologist, the technician. Each through trend of thought or force of work may be in danger of losing touch with those working at his side on different problems, even those working within the walls of the same great Teaching Hospital. For this reason we commend to each the study of men whose characters and whose minds may help to widen the horizons of their own.

In our lifetime there will be few men of the character of General Smuts. We should do well, whether they be statesmen, soldiers, philosophers, or all three, to enrich our profession and ourselves by embracing the best that is in their teaching and their lives and by practising it in our own.

On another page will be found reference to the Pupils Physical Society. This Society, the oldest union of its kind in the country, was formed in 1771. Since then it has passed through many brilliant periods. Now it passes through one adding but little lustre to its name. It exists for the benefit of students. It provides an admirable opportunity for them to engage in discussion on clinical cases. It is primarily a Clinical Society and it has nothing to do with 'Physics' in the modern context of the word. We sincerely hope that it will receive the support of students during the coming season for, as was remarked at the Annual Meeting last week, it would be a sad thing if the oldest of Guy's Societies should peter out from want of support by the present day student.

Once again a dispute in the Printing Trade has resulted in a cessation of work. The *Gazette* is again produced under difficult conditions and we apologise to our readers for its delayed appearance.

This issue coincides with the beginning of the new Academic Year and the arrival of many new students. We believe we speak for the whole hospital in welcoming all of them into the family of Guy's and in expressing the hope that their next five years will be full of enjoyment.

We apologise for the absence of Sports News in this Issue. The Printing dispute has made it impossible to get the reports set up in time for inclusion.

About the Park

The new Rugger season has commenced and so far the 1st XV have won, lost and drawn one of each of its first three matches. We hope that especially in the early part of the season when the team has scarcely settled down the support from the touchline will be plentiful. Incidentally the new Guy's R.F.C. Programmes are selling well and have already fully justified their introduction.

It may not be generally known that the bibliography which will be included later in the article on Richard Bright is the first complete one ever to be compiled and we are certainly indebted to our Assistant Librarian Mr. Hill for providing Guy's with a complete list of the works of one of its greatest physicians.

ACADEMIC

October		
		Exhibition. Surgical Department. "Research Conducted by the Department."
9th.	1.00.	Mr. Doherty. Clinical Leature.
12th.	1.00.	Mr. Glover. Clinical Lecture.
	4.30.	X-Ray Demonstration. Gordon Museum.
13th.	1.00.	Dr. Campbell. Clinical Lecture. "Heart Disease—Real and Imaginary."
	2.15.	Combined Round. Pre-Clinical Classroom.
14th.	10.00.	Mr. V. H. Riddell, St. George's Hospital. Surgical Departmental Round. Clinical Theatre.
16th.	1.00.	Mr. Morgan. Clinical Lecture. "The Causes of Blindness and Treatment of the Blind."
17th.	1.00.	Major General Mollan. Clinical Lecture. "The Life of the Army Medical Officer."
	5.00	Science Club. Dr. E. Eric Pochin. "Clinical Uses of Radioactive Isotopes." Staff Common Room. (Tea 4.45).
19th.	4.30.	X-Ray Demonstration. Gordon Museum.
20th.	1.00.	Dr. Hardwick. Clinical Lecture.
	2.15.	Combined Round. Preclinical Classroom.
23rd.	1.00.	Mr. Brock. Clinical Lecture.

SPORT

October	
14th.	Rugby 1st XV *v.* Aberavon. (Aberavon).
	Rugby "A" XV *v.* Old Westcliffians. (H.O.P.)
21st.	Rugby 1st XV *v.* Bedford. (Bedford).
	Rugby "A" XV *v.* Bedford Wanderers. (H.O.P.)

Obituary

JOSEPH FOREMAN.

On 8th April we noted in our columns the death of Dr. Joseph Foreman. The following notice from the Medical Journal of Australia has recently been sent to us and will we believe be of interest to our readers.

We are indebted to Dr. H. H. Schlink for the following appreciation of the late Dr. Joseph Foreman.

After a brief illness, Mr. Joseph Foreman, L.S.A.(London), 1873, L.etL.M., R.C.P.(Edinburgh), 1874, M.R.C.S.(England), 1874, F.R.A.C.S. 1927, died at Sydney on Sunday, January 15th, 1950.

By his death both citizens and the medical profession have suffered a great loss and another link with old Sydney has been swept away. Mr. Foreman was in his hundredth year. He was born on August 23rd, 1850, at Wigan in Lancashire, England, of medical parentage, and qualified from Guy's Hospital, London, in 1873. Soon after qualification he went as a medical officer in charge of an immigrant ship to New Zealand. In those remote times the positiion of a ship's doctor entailed much greater responsibility than similar positons today. The medical officer was in complete charge of the discipline as well as the health of the immigrants and received ten shillings a head for every one he landed alive. This precious cargo often became very truculent, and soon after the ship set sail from London one semi-criminal type of man started to disrupt the peace, and the young medical officer promptly imprisoned him on short rations in one of the lifeboats, which in those days swung over the side of the ship.

All who knew Foreman's quiet manner and authoritative strength can quite realize that cold and hunger soon forced the man to ask for mercy. As our old patron told me, there was no more trouble and he landed his charges in good health without the loss of one soul. He practised in New Zealand for a short time and then transferred to Australia, where after a short term with the Australian Mutual Provident Society he commenced practice at Woodburn on the north coast of New South Wales, and later at Lismore.

About the year 1880 he married and went abroad to specialize in the diseases of women under the then famous Berlin Surgeon, Augustus Martin. On his return to Australia he settled in Sydney and was the first medical man to confine his practice entirely to gynæcology and obstetrics. In the year 1884 he was appointed as obstetric surgeon to Prince Alfred Hospital, as it was then called, and continued to serve that institution in one or other honorary capacity for sixty-six years. In his early stages of work at the hospital he performed, for the first time in Sydney, Tait's operation, the shortening of the round ligaments by the old Alquie method, Porro's hysterectomy and the Cæsarean section. He was one of the first to perform the total hysterectomy with closure of the abdominal wound, in 1895—that is, a year before this operation was performed by Doyen at the International Congress in Scotland (1896). That a young surgeon in the Antipodes had the courage and ability to perform what was in those days such a difficult and intricate operation, before his old teacher in the well-established Edinburgh School had essayed it, goes to illustrate what manner of man our old friend was.

Foreman was also an honorary surgeon at the Royal Hospital for Women, in virtue of his University lectureship.

He was appointed lecturer in the diseases of women at the University of Sydney in 1896 and continued in this office until 1920. The hundreds of practising doctors who have sat under him will recollect his well-balanced and practical lectures as well as the fund of common sense advice he gave his students : " Gentlemen, a clean shirt each day has made many lucrative practices "; " Keep your hands out of your pockets and don't leave suds in the basin ; others must use it "; " Many strange bodies might be the cause of vaginitis—pessaries, pencils, grasshoppers, and even a bust of Napoleon the Great."

All knew he was a fair, unbaised, even if severe, examiner. His punctuality, his calm and dignified manner set an example for all. Who will forget his close-shaven head and his grey belltopper ?

He was a director of the Royal Prince Alfred Hospital from 1918 until his death and his wise and intelligent advice was listened to respectfully by all. In his later years he had to have one of his vocal cords removed for a suspicious patch and afterwards he spoke in a very low tone, but whenever he did there was absolute silence ; everybody was all ears to catch his every word. For a time he was also on the Board of Management of the Sydney Hospital and on the Board of Health.

During his long professional career he was one of the very early members of the New South Wales Branch of the British Medical Association and occupied many administrative positions on the committee and at medical congresses. He was a founder of the Royal Australasian College of Surgeons and one of the oldest members of the Union Club.

He was an exceptional man in every way. He lived for more than ninety-nine years served his hospital and university for a continuous period of sixty-six years, did so many kind actions to his patients, colleagues and friends during his long medical practice and was so honest and fearless that the world would be a much better place to live in if more of us would adopt his attitude towards life and their neighbours.

After retiring from active practice at about the age of seventy he went on the land and for twenty-seven years made an eminent success of the venture. He first bought a property in the Cooma district. All predicted failure on account of the amount of loose stone and bareness of the ground. He cleared the land, grew lucerne where it had never grown before, and eventually sold the station for double what he had given for it. He wanted a property nearer Sydney and so purchased Karoo at Meadow Flat near Bathurst. His improvements and care of a much run-down property have turned it into a piece of Devon.

The one outstanding name connected with gynæcological surgery at the Royal Prince Alfred Hospital, or in point of fact in this State, is that of Mr. Joseph Foreman. After a hard and strenuous thirty-five years of free round-the-clock service to the poor he still continued to help guide the destinies of the department he originated, and at the age of ninety-six he reached the highest point of a noble and distinguished career of service by allocating to the professional home of his youth the earnings of a lifetime in order to help the younger generation to perfect themselves in the practice of gynæcology. In 1948 he gave £20,000 to the Board of the Royal Prince Alfred Hospital to create fellowships and to improve the department's facilities for teaching.

Farewell and hail to our grand old man and patron, who left everything he touched better than he found it. He was cremated on Monday, January 16th at a private funeral. He, with Dr. Creed was among the first to advocate cremation in this state. He leaves a widow, who as Winifred Hay was his faithful fellow worker in the operating theatre of the old Clarmore Hospital. The profession offers Mrs. Foreman the most sincere sympathy in her bereavement.

Correspondence

G. D. Channell Fund

SIR,—We wish to express our warmest thanks to all those who have contributed to the G. D. Channell Fund. Most subscriptions have been acknowledged but some that have been sent direct to the bank have not been acknowledged and we wish to take this opportunity to thank the senders. We should be grateful if anybody who has not contributed and still wishes to do so would send their donation soon as the Fund is about to be closed.

Yours etc.,

R. C. BROCK,
N. L. ECKHOFF,
S. H. WASS,
J. WHILLIS.

Guy's Hospital, S.E.1.

Guy's Science Club.

SIR,—May I once again make use of the *Gazette* to issue a warm invitation to all members of the Teaching and Research Staffs of the Hospital and the Schools to attend the meetings of the Guy's Science Club during the coming season? Meetings are *normally* held on the second Wednesday in each month during Term, at 4.45 p.m. (tea at 4.30 p.m.) in the Staff Common Room, by kind permission of the Dean. Notice of speaker and subject are given both in Guy's Diary and on various notice boards about the Hospital precincts.

The first meeting of the new session will, however, take place on Tuesday, October 17th, at 5 p.m., when a discussion on " The Clinical Use of Radioactive Isotopes " will be opened by Dr. E. Eric Pochin of the M.R.C. Clinical Research Unit at University College Hospital Medical School. Newly appointed members of the Staffs will be very welcome at this meeting.

Yours, etc.,

C. B. ALLSOPP,
Honorary Secretary.

Babies and Habits.

SIR,—You have recently given us two lectures on the care of babies, in which it was taken for granted that the napkins will be soiled. One wonders how such an idea became so universal; we can train kittens and puppies to be clean—have our own children not as much intelligence? One sees a long line of newly washed napkins drying outside folks houses. What a disgusting idea it is, why ever do women put up with it!

For it is so simple and easy to train even a newly born child. One " holds them out regularly," and encourages the act with little noises, or a pencil of soap. A child so trained will scream to call attention rather than soil its napkin. Surely it is time that this was known, and medical men are the ones to insist on it, from every point of view.

Yours, etc.,

R. S. DUKES.

Mangonni,
N. Auckland,
New Zealand.

" Antibiotics "

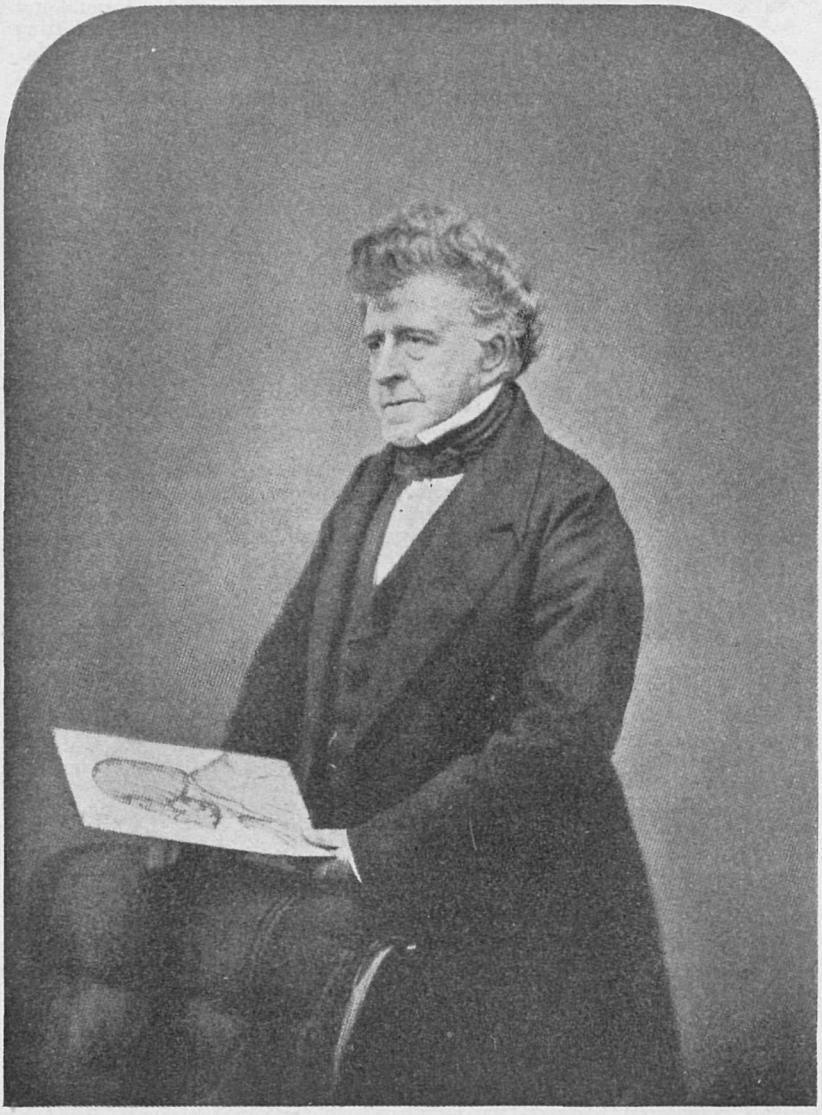
SIR,—I read Dr. Irvine's article on Antibiotics with interest. I feel however, that in the section on Penicillin one important point which is not mentioned. When considering the question of long interval dosage, Ungars' work on artificially-produced tissue exudates cannot be ignored. He showed that following systemic administration, Penicillin persists in such exudates for some eight hours after it has disappeared from the blood. This confirms the similar observation of Florey and his colleagues, on wound exudates. This would seem to provide some ground for prolonging intervals between doses for longer than the twelve-hourly period mentioned.

I was also disappointed to see no mention of oral administration; a method which will undoubtedly become more popular for the less serious conditions amenable to Penicillin therapy.

Yours, etc.,

DAVID WHEATLEY.

1. Ungar, J. *Lancet*, 1, 56.
2. Florey, M. E. Turton, E. C. and Duthis, E. S. *Ibid*, 1946, 2, 405.



Richd Bright

(*By kind permission of Guy's Hospital Reports*)

Richard Bright—A Bio-Bibliography

By WILLIAM HILL, A.L.A.

THE WORLD OF RICHARD BRIGHT

THE lifetime of Richard Bright saw perhaps the greatest change ever experienced in the history of England. The year of his birth marks the end of the eighteenth century world of art and elegance, of Hogarth, Gainsborough, the Adam brothers, Dr. Johnson, Goldsmith, Gray ; of Chippendale chairs and Georgian architecture. His death occurred at the height of the great movement we call the Industrial Revolution, the era of steam, iron and steel ; of rapid expansion of towns ; of Factory Laws, Reform Bills and Trade Unions.

The first years of his life saw the Napoleonic Wars : his last the Crimean and between these was the age of unrest, Peterloo, rick burnings, the Chartists, the Luddites and discontent at home and on the Continent.

During the Napoleonic Wars rural England was still unspoilt. Such industrial towns as existed were few and compact, but once the Industrial Revolution was under way the towns invaded the countryside, and the ' jerry builder ' came into his own. Manchester in 1773 had a population of 13,800. In 1778 the number had jumped to 50,000, and three years later, in 1781, the population exceeded 70,000. Progress in all directions was the keynote of the nineteenth century. Dr. Trevelyan says ' . . . in our day inventions, each implying a revolution in the habits of man, follow each other thick as the falling leaves. Modern history, beginning from the England of 1780, is a series of dissolving views. In each generation a new economic life half obliterates a predecessor little older than itself.'

This vast expansion led to great overcrowding in the towns. Houses were built as rapidly as possible, in many cases back to back to save space, and sanitation by modern standards was appalling. Water supplies were in constant danger of pollution by sewage, and in Manchester there were ' open cesspools, obstructed drains, ditches full of stagnant water, dunghills, pigstyes, etc., from which the most abominable odours are emitted '. The Poor Law Commission's report, ' The Sanitary Condition of the Labouring Population ', published in 1842, from which this quotation is taken, gives a graphic picture of the background to progress. Despite the dreadful conditions under which many people lived, it is surprising to find the death rate falling. In 1790 the rate was 25.65 per thousand, while twenty years later it was 19.98. This fall is probably due to the effects of vaccination.

In the sphere of medicine conditions were vastly different to today. The profession was still unorganised ; the B.M.A. and the Medical Acts both date from 1858. Schools had grown up around great teachers in the hospitals, and from these the Medical Schools developed. In addition, there were private schools of which Hunter's in Windmill Street and Smellie's are two of the best known. Most students spent a year at a school and took one of the Diplomas granted by the Colleges, a University degree or the Certificate of the Apothecaries.

Conditions in hospitals were bad. Surgery was ' pre-Lister ', with all that that implies. Cleanliness in the wards left much to be desired, and we find Lettsom earlier in the century complaining that spitting was not allowed. Patients were often crowded two in a bed and the ' hospital diseases ' were rampant. The vast majority of operations were amputations undertaken with a view to saving life rather than curing disease. In one hospital five out of every twelve persons who underwent amputation died.

Nursing as a profession as we know it did not exist. The age of Florence Nightingale had yet to come. In the place of the modern nurse there were what has been described as a charlady type, who was invariably drunk. Interesting details of the life of Guy's may be found in the series of Steele Diaries recently published in the *Gazette*.

On the other hand, progress in Medicine was growing apace. Before 1800 Morgagni (De Sedibus 1761), Bichat (Traité des membranes, 1800) and Mathew Baillie had placed Pathology on a sound footing, to be followed later on by Virchow and Rokitansky. Clinical Medicine had been in the hands of Lettsom, Heberden and Fothergill; Jenner and Withering had made their great contributions to medicine. These were followed by Bright, Addison, Wilks, Gull, Hodgkin, Graves, Stokes, Laennec and Adams. The possibilities of surgery were being extended by Hunter, Cooper and Mott, and the advent of antisepsis and anæsthesia in the middle of the century gave a tremendous impetus to the foundations laid down by the early pioneers.

Physiological knowledge was growing rapidly with Marshall Hall, Claude Bernard, Muller and Beaumont as the outstanding figures.

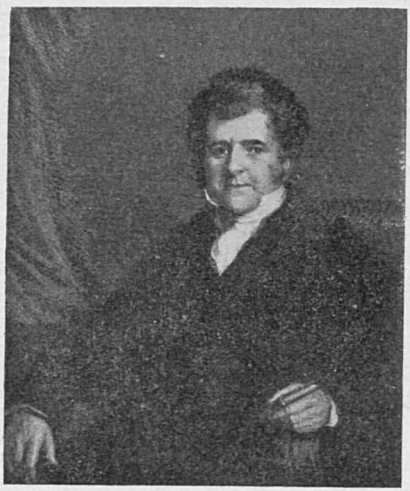
It was against this background that Bright lived and worked and added his quota to the store of the world's knowledge.

HIS EARLY LIFE

Richard Bright was born on 28th September, 1789, at Queen's Square, Bristol. The possibility that, like others of the family, he was born at Ham Green, Somerset, is now recognised as being incorrect. Sir William Hale-White quoted a letter (see item 96 in the Bibliography) which he had received from Mr. Trevor Bright showing that the place of birth was definitely Queen's Square.

Richard's father was a member of the rich banking firm of Ames, Bright and Cove, and the family traced its descent back to Henry Bright, D.D. (1562-1616), Master of the King's School, Worcester, who finds mention in Fuller's Worthies.

Richard was one of a large family, there being ten children in all. Thayer says that there were only seven, but Mr. Trevor Bright, in a letter to the *Bristol Times and Mirror*, states definitely that there were ten, five boys and five girls, Richard being the third son. He and his elder brothers were born in Bristol and the remainder at Ham Green.



His eldest brother (born 1784) was called to the Bar in 1810 and was M.P. for Bristol from 1810-1820. He was Lord of the Manor of Brockbury in Hereford, and succeeded to his father's estates in 1840 and died unmarried in 1869. The parliamentary tradition was carried on by a son of one of the other brothers, who was M.P. for East Somerset for a number of years.

Richard's earliest education of which we have record was at a private school owned by a Dr. Estlin at Bristol, and it was here that he met Henry (later Sir Henry) Holland, who later accompanied him to Iceland. After this period with Dr. Estlin he studied privately with a Dr. Carpenter at Exeter before entering Edinburgh University in 1808.

At Edinburgh he matriculated in the Faculty of Arts in the same year and gained the Mathematics Prize. During this time he lived with the Rev. Robert Morehead, who later went to Guisborough, Yorkshire. After Matriculation he studied in the Faculty of Arts for a year, attending the classes in Moral and Natural Philosophy. Moral Philosophy was in the hands of Dugald Stewart, then at the height of his fame and attracting men from all parts of the country to his lectures. As well as his lectures, his many books added to his fame,

and he was one of the first men to make commonsense philosophy popular. More concerned with Psychology and Law than with Metaphysics, Lord Cockburn said of him: 'To me his lectures were like the opening of the heavens'.

Bright studied Natural Philosophy under John Playfair, who made many contributions to the scientific thought of his day, and who, like Stewart, was held in high regard as a teacher. John Leslie, another of his teachers, held the Chair of Mathematics, to which he had been appointed in 1805 after a fierce contest conducted with much bitterness and a wealth of pamphlets on either side. The chief objection to his appointment was the unorthodox views he expressed in his 'Essay of Heat', published in 1804. Later on, in 1826, he was again the centre of controversy when he introduced popular lectures to mixed audiences, a proceeding which it is said 'led to unseemly results' and the lectures were closed down after one session.

After his year in the Faculty of Arts Bright transferred to the Faculty of Medicine and commenced the study of his future profession. Among his teachers were Andrew Duncan, who had succeeded James Gregory, of Gregory's Powder fame, in 1790. He was a man of great ability, and was the progenitor of many projects in Edinburgh, among them being the Dispensary, the Morningside Lunatic Asylum, the Horticultural Society, the Harveian Society and the Esculapian and Gymnastic Clubs. He also found time to be the founder and first editor of the *Medical and Philosophical Commentaries*, which later became the *Edinburgh Medical and Surgical Journal*.

Bright studied Anatomy under Alexander Monro the Third, who occupied the Chair for 38 years, bringing the combined period of the three Monros as Professors of Anatomy to 126 years. It is said that he was content to read his grandfather's lectures as they stood, even leaving in such phrases as 'When I was a student at Leyden in 1719'. His classes were often the scene of uproar, but, despite this, Sir Robert Christison says: 'He gave a clear, precise, complete course of lectures on Anatomy.'

For Chemistry Bright studied under Charles Hope, who had been a pupil of Lavoisier and who was the discoverer of Strontium.

TRAVELS IN ICELAND

In 1810, in company with Henry Holland, he asked Sir George Mackenzie if he might join the latter on his projected trip to Iceland. Mackenzie writes:

'. . . Mr. Henry Holland (now Dr. Henry Holland) and Mr. Richard Bright expressed a wish to accompany me and I did not hesitate to meet their wishes, knowing them to be young men of very superior talents and accomplishments, in a high degree pleasing in their manners, and promising me the hope of numbering them (as I now have the happiness of doing) among my friends.'

Mackenzie was the pupil and friend of Professor Robert Jamieson, of Edinburgh, and devoted his life to the study of mineralology, and it was to further his knowledge that he made the trip to Iceland. Iceland is a volcanic island being built up of volcanic rocks from the depths of the sea and is of intense interest to geologists. According to estimates, since 1500 Iceland has produced about one-third of the world's total amount of lava and contains at the moment of writing about 107 volcanos. One of the highest, Skaptar Jokull, was the scene of a tremendous eruption in 1783, in which a fifth of the population were killed and over half the cattle, sheep and horses destroyed. In the light of this the account of Mackenzie's expedition makes interesting reading. Although the island is only 600 miles from Scotland, very few Englishmen had visited it, and those that did wrote little about it, so that Mackenzie's book was of great importance. It was published in the following year and was called simply 'Travels in the Island of Iceland'. Bright's contribution to it took the form of an account of the flora and fauna of the island.

In his preface Mackenzie wrote of Bright : ' . . . I shall ever retain a grateful remembrance of the cheerful and ready exertion he always displayed, and the unfailing good humour with which he submitted to the cross accidents which sometimes befell us.'

The expedition set out from Leith on 18th April, 1810, sailing to Stromness, where they were to meet the *Elbe*, which was to take them to Iceland. After a delay due to the non-arrival of the *Elbe*, they left on the 28th and arrived in Reikiavik on 8th of May. Their first few days in the capital were spent in presenting their letters of introduction, and Mackenzie gives several amusing accounts of the dinners and dances which were given in their honour.

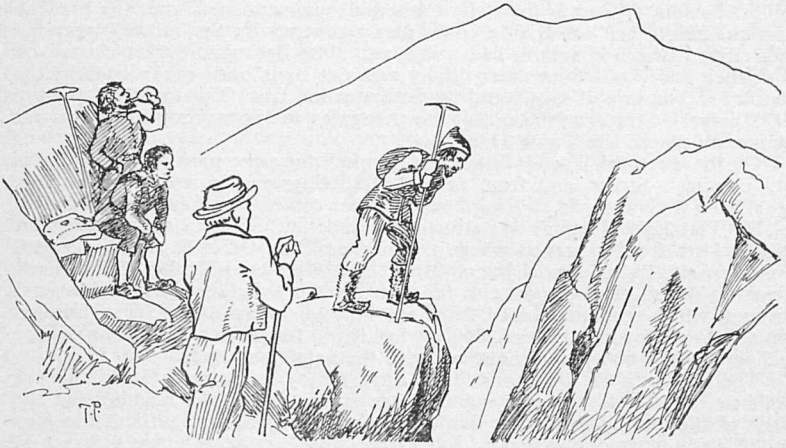
They decided to make the capital their base, and from here they planned their sorties, each one covering a different region of the island. The first one covered the immediate neighbourhood of Reikiavik, the second the Western peninsula, and the last was the exploration of the geysers in the Skalbolt area. This later was the primary purpose of the expedition, for little was known of the physics of geysers and of volcanic action, and accounts had reached England of the remarkable nature of the Icelandic geysers.

They set out on their first trip on the afternoon of May 20th and spent four days exploring the geysers of boiling mud in the area around Krisuvik, Grundevik and Kieblevik. On their return journey by a different route they were forced to cross a large tract of solidified lava, the result of an earlier volcanic disturbance. In cooling the lava had taken on the most fantastic shapes and the convolutions limited their field of vision to a few yards on either hand. After a mile or so, during which time they followed a ' valley ', Holland returned to recover something which he had left behind at the last camping site (the account makes no mention of its nature). The others continued at a slower pace without him. Some while later Bright stopped to execute some running repairs to his boots, which by this time were showing the effects of the jagged surface of the lava, and in so doing left his greatcoat behind. When he realised his loss he retraced his steps and lost contact with Mackenzie. It was not until over an hour and a half later that he regained contact and there was still no sign of Holland. It took them another twelve hours to reach Havnefiord, their destination, where they found Holland safe but with badly cut feet, his boots having been worn completely away so that he was forced to continue in bare feet. On comparing notes on such landmarks as had been visible they found that on several occasions they had been within yards of each other, but the nature of the ground had hidden them from each other's view.

They reached Reikiavik on the 3rd June, and here they rested until the 15th, on which day they set out on their second trip to explore the western peninsula. They met with an early setback, for the horses and guides failed to arrive at the pre-arranged spot at the foot of Mount Essian. There being no alternative apart from returning across the bay to Reikiavik, they decided to wait, and were quartered in the church at Brautashalt, a nearby village. Ultimately the guides arrived, but too late to start that day, so they spent the night there and resolved on an early start the following morning. The villages of Iceland were so small, being only a few tiny houses, that the accommodation of a party as large as Mackenzie's proved difficult, so they were, as a rule, quartered in the churches, themselves small. The one at Saurbar, a small village near Brautarholt, was typical, being 35 feet long, 16 feet wide and 7 feet in height. Bright sketched it, and the drawing is reproduced on page 139 of the book.

On this journey they visited Indreholm, where they stayed with Chief Justice Stevenson, experiencing ' the utmost hospitality and attention '. They spent three days with the hospitable judge and set out to explore the coast, especially the caves around Stappen. One of the caves is the subject of a sketch by Bright on page 73 of the ' Travels '. These caves were the result of the lava flow from the many eruptions which have taken place in Iceland. After several days of exploration they attempted the ascent of Mount Snaefell Jokul. The description of the climb is by Bright, who went with Holland, an interpreter and a guide, Mackenzie remaining behind. For unexperienced climbers as they were the ascent was difficult, but they succeeded in reaching a point about

100 feet from the summit, being forced to retreat by ' a fissure greatly more formidable in width and depth than any we had passed and which indeed offered an insuperable obstacle to our further progress '. A sketch of the summit was, however, reproduced in the account (p. 203).



" A fissue greatly more formidable in width and depth than any we had passed."

On the return Holland had a narrow escape when his feet went through a snow bridge which they were crossing. He was saved by the prompt action of the Icelanders, who, with the aid of their snow poles, pulled him to safety.

The farthest point reached on this journey was Snoksdalr, from which they returned by a different route, passing through Hadarvellir, where Bright was ' somewhat indisposed '. No hint is given as to the nature of his illness, but it was apparently slight, for he was able to continue the following day. The others spent the day in local trips. They reached Reikiavik after having been away for a month and two days and having covered 350 miles.

Their third and final trip started on July 25th, after an abortive start the previous day, when wind and rain forced them to retreat after a mile or so. Their first halt was at Thingvalla, the ancient seat of justice on the island. From here they commenced the most important of their explorations—the geysers around Skalbolt. Mackenzie sums up his impressions in these words :

' . . . the descriptions we had read and the ideas we had formed of their grandeur were all lost in the amazement excited on their being actually before us ; and though we may, perhaps, raise their attributes in the estimation of the reader, we are satisfied that we cannot convey the slightest idea of the mingled raptures of wonder, admiration and terror with which our breasts were filled.' Bright attempted to convey some of them in a sketch on page 210.

They left the geysers on July 30th to explore the area around Mount Hekla, one of the most famous of Iceland's volcanos, and which was active at this time, but, despite this, they climbed it on August 3rd. This was their last trip, and they returned to Reikiavik, where they rested until they left for England on August 19th. This journey was not without incident, for they managed to get passage on the only vessel that left Iceland that autumn, and it was only after 14 days of rough weather and a narrow escape from shipwreck at the entrance to Hoy Sound that they landed at Stromness, finally crossing to the mainland two days later.

GUY'S IN THE EARLY 19th CENTURY

It is convenient at this point to give a brief picture of Guy's and the Borough during the earlier part of the nineteenth century and the life of the medical student of the time.

Borough High Street is one of the oldest roads in London, and its course has been roughly the same since its birth. In Bright's day it was much as

now, except that it now curves away to the west at the northern end and was widened when the new bridge was built in 1824-31. The comparison between maps of 1800 and 1950 show that the main changes in the area have been the result of the building of the railway between 1843 and 1863.

St. Saviour's Church (now the Cathedral) was separated from the road by houses, and to the south side (now partly covered by the railway) was the churchyard where Haighton had a theatre. The Borough Market existed on a smaller scale, and Southwark Street was not built until much later in the century. The line of shops and houses extended from York Street (opposite St. Thomas's Street) to the end of the triangular site now occupied by the war memorial, where the Town Hall stood.

On the east side, Tooley Street was in much the same position as now, as is St. Thomas's Street, and from here the buildings ran in a continuous line, apart from the inn yards, to King Street, or Newcomen Street as it is now called.

St. Thomas's Hospital was situated behind the houses in the High Street and had its front entrance where the present Post Office is. The hospital buildings ran from here to Joiner Street, and were bounded by St. Thomas's Street in the south. Opposite to the front entrance to Guy's was a side gate, through which students passed from one hospital to the other. The hospital remained on this site until the 1860's, when it was forced to move by the railway and so ended a 600-year connection with the neighbourhood.

The houses in St. Thomas's Street opposite to St. Thomas's Hospital were built in 1819, and the occupants have been, on the whole, members of the staffs of the two hospitals (Sir Samuel Wilks, John Hilton, South, Aston Key and Mahomed among others). John Keats lived in St. Thomas's Street in 1815, but the exact position of Markham's shop (over which he lived) is not known.

Guy's Hospital consisted of the original block (now the surgical wards). This was bounded by New Street (now Maze Pond), the backs of the houses in the High Street, and by Collingwood Street (now the road from the Dental School to the Memorial Gates). On the site where Hunt's House now stands stood a row of small houses bounded by New Street and Sutton Street (now the roadway in front of it). Opposite to these houses stood the lunatic wards, which later became ' Clinical ' and which lasted until the present Physiotherapy Department was built. Behind the Sutton Street houses near to where the College now stands was a burial ground and next to it was the botanical garden for the use of students.

At this time Guy's and St. Thomas's were combined for the purposes of medical education, and were known as the Borough or United Hospitals. Students admitted to one were permitted to attend the practice of the other. Surgery and Anatomy were taught at St. Thomas's and Medicine, Chemistry and Midwifery at Guy's. Although officially no anatomy was taught at the latter hospital, in actual fact classes were held and bodies dissected. In the " Diary of a Resurrectionist " we read of supplies of subjects to Guy's.

Each surgeon had four dressers attached to him and he derived a portion of his income from their fees. In addition, each surgeon had pupils and apprentices. The fees of the pupils were divided among the surgeons and the apothecaries of the two hospitals. The dresser was a most important person. A contemporary letter says :—

" He has the execution of everything but the great operations, the smaller and most frequent ones he is allowed to perform when he has been long enough in train to lose the trembling hand, in short, before the end of the year he becomes, as it were, an Assistant Surgeon, for all the accidents are submitted to his care and judgement, he takes up the vessels after operations, puts on the bandages, and acts a foremost character in the presence of numerless spectators."

A student's life was no rest cure in the early 19th century. His day commenced at 7.30 with a lecture on Midwifery from Haighton, followed by a hasty breakfast. After this there were lectures on chemistry and physiology until eleven, at which time ward duties commenced. These lasted until one, after which anatomy lectures continued until three in the afternoon. The students then had time for a meal. Surgery lectures were given in the evenings and went on until nine or ten. Most students spent a year at the hospital.

On Mondays, Tuesdays and Wednesdays surgeons went round the wards. John South describes the scene :—

". . . On the surgeon's arrival the fun ceased, quiet succeeded, and as he approached respectful greetings took place between each. The visit then commenced, the surgeon being immediately attended by his dressers, whose dignity was indicated by each carrying a tin plaister box, in shape not unlike a table-knife box ; the other pupils followed as they might, pushing and elbowing each other that they might get the nearest place to the surgeon and the patient's bed, so as to hear the remarks of the former, which generally were very few (unless particularly asked for by some attentive and intelligent pupil) ; but, on account of the crowd, the case could be seen by very few. . . . The time occupied in going round the house was from an hour and a half to three-quarters, some of the surgeons proceeding more quickly than others ; of course, also, the number of severe cases which required and received special attention caused a greater or less lengthened visit."

Thursday was taking-in day. The patients applied to the Steward's Office for a petition, and, when this was granted, proceeded to the admission room. Here the cases were selected on the basis of beds available. The surgeons were forced to keep back several beds for emergencies and accidents, but the physicians usually filled up their allocation. Urgent cases were admitted at all times at the discretion of the dresser of the week.

Operations took place on Fridays. St. Thomas's surgeons operated at twelve and the Guy's surgeons at one. John South describes the usual scene :—

" The general arrangement of all the theatres was the same, a semi-circular floor and rows of semi-circular standings, rising above one another to the large skylight which lighted the theatre. On the floor the surgeon operating, with his dressers, the surgeons and apprentices of both hospitals, and the visitors stood about the table, upon which the patient lay, and so placed that the best possible view of what was going on was given to all present. The floor was separated by a partition from the rising stand-places, the first two rows of which were occupied by the other dressers, and behind a second partition stood the pupils, packed like herrings in a barrel, but not so quiet, as those behind were continually pressing on those before, often so severely that several could not bear the pressure, and were continually struggling to relieve themselves of it, and had not infrequently to be got out exhausted. There was also a continual calling out of 'heads, heads.' to those about the table, whose heads interfered with the sightseers, with various appellatives, in a small way resembling the calls at the Sheldonian Theatre during Commemoration. The confusion and crushing was indeed at all times very great, especially when any operation of importance was to be performed, and I have often known even the floor so crowded that the surgeon could not operate till it had been partially cleared. After our [St. Thomas's] operations were over, the students rushed down two flights of stairs and across the street to Guy's, to rush up as many stairs and repeat the same scrambling for places and confusion as before. With all this struggling for the best places, it was very rarely any quarrelling occurred ; every one seemed to consider he must put up with the pushing and squeezing if he could only contrive to get a glimpse of what was going on ; but the majority had to draw largely on their imaginations of what they fancied they saw."

" Behind a second partition stood the pupils, packed like herrings."

(To be continued)

Clinical Pertussis Treated with Methyl Atropine Nitrate (Eumydrin)

By A. S. WOOLSTONE, M.R.C.S., L.R.C.P.

An attempt has been made on a few cases to substantiate a clinical impression (formed in treating 200 cases) that atropine methyl nitrate (Eumydrine) is a valuable drug for treating pertussis.

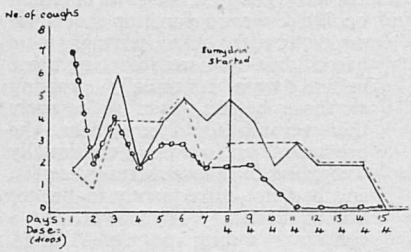
The cases were between the ages of 3 and 8 years, with clinical pertussis. In all cases the cough had been present for a week or two before any form of medication was given. Parents were asked to record on a simple chart the number of coughing attacks occurring each day, so as to show the number of times during the day that the child :

(1) coughed

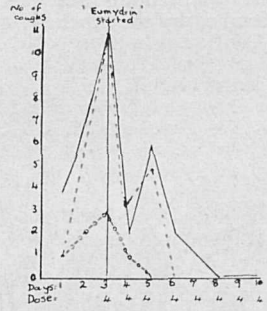
(2) had a long series of coughs following by a whoop

(3) had the same, but ending in an attack of vomiting.

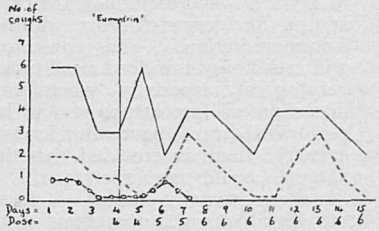
Unfortunately the enthusiasm of the parents for this form of treatment was not always matched by their efficiency in keeping records, but some of the results have been graphically set out (see figures 1, 2, 3, 4). In this trying illness it is probably noteworthy that some parents found keeping the records helpful, for they were able to reassure themselves that progress was being made.



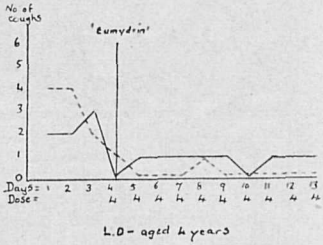
L.C.– aged years



D.H.– aged 4 years



T.C.– aged 3 years



L.D.– aged 4 years

The unbroken line represents a short cough.

The broken line represents long coughs ? (or whoop).

The broken line with circles interspersed represents cough and vomiting.

In order to compare the effect of the drug with more commonly used treatments, a mixture containing stramonium and ephedrine was given to each patient for a few days before starting the atropine methyl nitrate. Only slight improvement was observed during the administration of the stramonium-ephedrine mixture.

Dosage

Of atropine methyl nitrate, an alcoholic solution containing 0.6% was used. The dosage varied from four to eight drops, administered in water and given four-hourly. The dose was increased by not more than one drop every 24 hours until even the most resistant cases were brought under control. On only one occasion was the dose increased to 12 drops. This was in a child aged 6 years and even here, there was no dilation of the pupils nor other signs of over atropinization.

Results

The results of the treatment may be illustrated by the following three typical cases.

Case 1. C. L. a girl aged 7 years.

Before starting the drug, she had been coughing and vomiting four to seven times a day for five days. On the first day of treatment the vomiting and cough began to decrease. Improvement was maintained with only two more post tussive vomitings. The short coughs, ten to twelve daily before the treatment also improved progressively.

Dosage was, six drops four-hourly the first day; seven drops the second day and eight drops from the third to tenth day.

Case 2. R. T. aged 11 years.

Before treatment the patient had been having three or four long coughing spells with vomiting every day, with about thirteen short coughs. After treatment was started on the sixth day, the coughing paroxysms gradually lessened, with two exerbations. There were still four or five short coughs daily after sixteen days.

Dosage was four drops, increased gradually until on the thirteenth day he was having eight drops per dose, which was continued for five days.

Case 3. A girl aged 5 years.

Before treatment she was having four coughing paroxysms and six short coughs daily. On the second day of treatment the number of long paroxysms began to diminish and by the seventh day there was no cough.

The dose of atropine methyl nitrate throughout was four drops four-hourly.

Cases 4 to 7 are recorded graphically in figures 1 to 4.

In most of the cases treated, improvement was noted usually within two to three days. Diminution in the number of coughing attacks and of vomitings was often noted shortly after the start of treatment. The records do not reveal the decrease in severity of the attacks which is even more marked than the decrease in their number.

It is realised that this work is full of weaknesses. Complete case histories were not always recorded and the difficulties in obtaining accurate records will be appreciated, but the efficacy of the treatment of pertussis with atropine methyl nitrate was such as to preserve this report of a treatment for an extremely unpleasant illness.

Reviews

Iron Metabolism and its Clinical Significance. By A. Vannotti and A. Delachaux. Muller. *Price* 32*s.*

This is an English translation of a monograph originally published in 1942. It has, to some extent, been brought up to date, though unfortunately several important developments are not included, e.g., the use of intravenous iron. Many data on serum iron are presented in a study of iron metabolism under normal and pathological conditions, but their significance is sometimes difficult to understand.

The Physiological Basis of Medical Practice. By C. H. BEST and N. B. TAYLOR. 5th Edition. Baillière, Tindall and Cox.

This excellent Canadian text-book is one of the few which show the true position of physiology in the medical curriculum. The authors give a well-balanced account of normal physiology emphasising those aspects which are of clinical importance, such as hæmopoiesis, anoxia and electrocardiography, without neglect of the more purely scientific aspects of the subject, for example, the role of acetyl chlorine in the activity of the nervous system ; and including sections dealing with what may be described as pathological physiology : jaundice, shock, œdema and cardiac failure being a few of the subjects discussed.

The fifth edition has been revised to include accounts of recent advances in physiology and covers adequately such subjects as the renal circulatory shunt mechanism and the secondary sensory cerebral cortex.

However, the authors might well have discarded completely Head's concept of protopathic and epicritic sensibilities, now generally considered incorrect, and perhaps the subdivision of each medullary co-ordinating mechanism into numerous " centres " is undesirable too.

Most of the figures, of which there are an additional hundred in this edition, are of good standard and the bibliography, though not extensive, is well chosen.

In all, this is a book eminently suitable for the medical student, both as his physiology text-book in the second M.B. course and as a useful reference book during the clinical part of his training.

J.E.

The History of Medicine. By Professor G. GASK. Butterworth. *Price* 30*s.*

This well-produced book contains thirteen essays written during the past thirty years. A few are records of contemporary rather than of past medical history and will be of greater interest in years to come. The majority are true essays in the history of medicine which, although liable to be discursive, are worth reading for their authority and specialised learning. The whole book reflects the author's sympathy with those physicians of the past whose interests were wider than are, perhaps, ours today. Essentially a leisurely book.

I.K.F.

Macdonald's Pocket Prescriber. Revised by ALISTAIR G. CRUIKSHANK. 14th Edition. Livingstone. *Price* 4*s.* 6*d.*

This small book has now been brought up to date. Although valuable for the newly qualified general practitioner on his own, it does not recommend itself to the student of pharmacology and therapeutics. Its rather " penny in the slot " treatment of diseases makes for somewhat slap-dash therapy in lazy hands. Nevertheless, it has a place in the early days of general practice.

B.H.B.

Living Anatomy. By R. D. LOCKHART. Faber. 71 pages. *Price* 12*s.* 6*d.*

This remarkable book, containing 149 photographs, depicts in an amazingly graphic manner the musculature of the human body in action.

It cannot help but stimulate one's interest in that wrongly supposed dull subject anatomy and goes a long way to simplify the understanding of it.

The importance of knowing the relation of one muscle to another is forcibly brought home to one and the explanation of " group action," " prime movers," " synergists," and " antagonists " is clear and brief.

I have always been impressed by the wonderous feats of muscle control demonstrated by such " mighty muscle men " as John Grimeck and Steve Reeves. One of their cleverest tricks is clearly explained in pictures on page 45.

This book should be a great help to all those who have to treat muscular and neurological conditions and it is a " must " for physiotheraists and for those studying for the Diplma in Physical Medicine.

H.T.v.D.

Cricketasters' Carnival

". . Like greyhounds in the slips . ."
Henry V.

". . A hit, a very palpable hit . ."
". . True is a Willow . ."
Hamlet.

" WHAT SAY YOU "
" A touch indeed I do confess."
Hamlet.

Much dissatisfaction has been expressed by our local cricketasters on the choice of the Australian tour team and no-one was surprised to find that a game had been arranged between the E.N.T. and Douthwaite and Mann firms in order that each might demonstrate their own particular theories.

The game commenced at 1.30 in the Miller and at 2.45 Goodfellow led the E.N.T. side onto the field.

Lansdowne, faultlessly attired in flannels, greaves, gauntlets, cod-piece and white visor was stumper and it was here that Goodfellow made his first terrible error.

Early in the opening spell of Harris, Medlock skied a simple catch above Goodfellow's attacking field, seven of whom prepared to take the catch. Foreseeing confusion Goodfellow cried " Lansdowne !"—a gross error. Far better to have allowed nature to take its course. Lansdowne, immaculate, ran as he thought beneath the ball to find it come to earth several paces to his left after some considerable interval. There was a terrifying silence and Goodfellow's attacking field were at him amidst cries of " whited sepulchre " " all rottenness within." Lansdowne was stripped of all wicket-keeping appurtenances but his box. Indeed this had been pulled five feet clear of his body only to be released to wing its way back to its trysting place.

Taking advantage of the confusion, the Mann firm under the auspices of Webb, the celebrated pocket Pantagruel, had broached and shortly drunk the entire kitty.

Thus it was that Medlock went on to score 78, not unaided by an unfortunate decision given by Kingon who was umpiring at that time. A confident appeal for an evident catch behind the wicket was answered by the words " A damn fine set of chaps," followed by a suggestive story. Not unnaturally the Mann firm amassed 193.

It has been said that within every fat man there is a thin man screaming for release, but there was no conflict on the face of Dr. Irvine as he ran up to open the Mann bowling. So remarkable was his action as to call to mind Bernardo's sentry call " stand and unfold yourself," and indeed remarkable results were produced, for the score became 20 for 4, Lazarus Lansdowne having failed to redeem himself and Skipper Goodfellow being outgamesmanned by Dr. Morris, the Mann stumper, into believing that he had been bowled. Shaw and Thomas then played stolidly to take the score up into the 70's: a handful of quick wickets fell and Harris and Bellis were together for the last wicket. They batted excellently, added some 40 runs and might have won the game but for the impetuousness of Bellis who ran a sharp single before Harris had finished gloating over a snick through slips. Both panicked, turned, ran together, hesitated in unison, ran on, finally ran back to Harris's end to be run out simultaneously.

There were no calypsoes. The critics were stilled. Nevertheless concerning the tour team for Australia possibly the England team does need a Shepherd, but surely Warr could have been averted. However.

Recent Advances in the Pathogenesis of Essential Hypertension

R. G. WALTON, M.B., B.S.

Associate Resident in Medicine, Vancouver General Hospital.

THE DEFINITION OF ESSENTIAL HYPERTENSION.

THE use of the word essential in this case can mean either primary or idiopathic. It is better to substitute the word idiopathic, because we are as yet not familiar with the cause of so-called essential hypertension and we are not certain that it is a primary condition. The only criteria necessary for diagnosis are :

(a) A persistent significant elevation of systemic blood pressure, both diastolic and systolic.

(b) A failure to demonstrate any of the known causes of secondary hypertension.

Essential hypertension has also been defined as an elevated blood pressure of unknown origin without recognizable disturbance of renal excretory function. However, it can easily be seen that this is not a practical definition because there are a number of late cases of essential hypertension whereby a dimunition of renal excretory function is easily recognizable.

It is possible that essential hypertension has many different causes and the clinical condition as we know it may be merely the end result of numerous different pathological processes. This is borne out by the fact that in the past there were a number of cases of so-called essential hypertension which have been more recently shown to be secondary hypertension. For example—chronic pyelonephritis, a common cause of a persistently raised systolic and diastolic blood pressure and before this condition was recognized pathologically the raised blood pressure was considered that of essential hypertension. Other examples of this are certain adrenal tumours and certain pituitary tumours which are now known to be the cause of raised blood pressure but at one time put down to essential hypertension, the pathological lesion then not being found and it is therefore conceivable that there are many cases of raised blood pressure which today are diagnosed as essential hypertension, but which will in the future be found to be hypertension secondary to other pathological lesions. Some authorities divide essential hypertension into two phases, the so-called benign phase and the malignant phase. Other observers consider that malignant hypertension is a completely definite and separate pathological process and when it occurs following benign essential hypertension is merely coincidental. However, today the weight of experimental evidence suggests that primary hypertension may have two phases or in other words may present in two different ways as a result of a difference in the qualities or quantities of the same causal agent and that malignant hypertension is merely an exaggerated and accelerated form of benign hypertension.

Clinically early benign hypertension consists of a raised systolic and diastolic blood pressure but no evidence of renal insufficiency or any increased intracranial pressure. (For example—no papilloedema). It is only in the late stages of this disease which is usually a long and extended one that any signs of renal insufficiency occur and in the majority of cases the patient has succumbed to the other complications of essential hypertension such as cardiac failure or a cerebro vascular accident before these signs of renal insufficiency take place.

On the other hand, the diagnosis of malignant hypertension depends upon a high systolic and diastolic blood pressure with papilloedema and other eye-ground changes and gross signs of renal insufficiency. This disease usually occurs in a younger age group than in the benign form of the disease and it has a very rapid course. The malignant phase may be superimposed upon a benign hypertension which has been present for many years.

Physiopathology.

The height of the systolic blood pressure mainly depends upon the forcefullness of the left ventricle and the height of the diastolic pressure mainly depends upon the effective peripheral resistance to the flow of blood through the smaller vascular channels (mainly arterioles) and increased resistance tends to raise the diastolic pressure. In essential hypertension, there is an elevation of both those pressures and therefore an increase of a left ventricular forcefullness and an increase in the preipheral vascular resistance are both present. Thus, in studying the pathogenseis of this disease, both these hemodynamic abnormalities have to be considered initially.

The autopsy examination of all cases of essential hypertension of some duration will show vascular changes whereby the calibre of the arterioles and the smaller arteries is reduced and thereby the peripheral resistance is increased. These arteriolar and arterial changes are mainly seen in the kidneys but can and do occur in the other organs. Also these cases of essential hypertension of some duration will also show left ventricular concentric hypertrophy which is evidence of increased forcefullness (or increased stroke volume) of the left ventricle. However, it must be stressed here that the post mortem examinations of cases of known essential hypertension of recent onset who have died of other causes show in the majority of cases no changes whatsoever—that is our known methods of histological study show no changes in the vascular tree and there is no increase in the size of the left ventricle. Renal biopsy material taken from the kidneys of early cases of essential hypertension undergoing sympathectomy confirm these findings. However, the examination of one small piece of renal tissue is hardly sufficient to give judgement on all the renal parenchyma. Therefore although without doubt, the increased peripheral vascular resistance in the later cases of essential hypertension is due at least in part, to organic narrowing of the arterioles and smaller arteries, the initial increase in resistance would appear to be due to an increase in tonicity (spasm of these vessels). Increase in tonicity can be produced by nervous pathways or by humoral routes (either chemical or hormonal).

The experimental production of hypertension by the Goldblatt mechansim is not prevented or cured by section of the vasoconstrictor nerves or even by complete pithing of the animal and also the relative failure of sympathectomy in the treatment of human essential hypertension would seem to favour the view that the initial vasocontriction is primarily of humoral origin and all modern methods of study have been developed along these lines.

Pathology.

In discussing the pathology of essential hypertension it will be better to divide it for description into the gross and microscopical appearance of the organs of both the benign phase and of the malignant phase. It must be stressed and re-emphasised here that in early cases of benign hypertension both the gross and microscopical findings may be absolutely normal. However, in the late stages of benign hypertension, the gross findings are usually as follows :

(a) Kidney—here we see the so-called primary contracted kidney, however in fifty per cent of cases, the size of the kidney is normal. Usually the surface is granularly scarred.

(b) Heart—this shows concentric left ventricular hypertrophy.

The most common complication of essential hypertension is cardiac failure, and, therefore, signs of (a) pulmonary œdema, (b) congestive cardiac failure, are often present.

The second most common complication is a cerebrovascular accident and, therefore, signs of cerebral hæmorrhage or cerebral thrombosis are often found.

Microscopically the main findings are in the kidneys. It should be emphasized that these histological findings can be and are found in other organs as well. There is usually elastic intimal thickening and subendothelial hyalinization of the intima, mostly found in the afferent a rterioles. Thisresults in a variable degree of hyalinisation of glomeruli with consequent atrophy of tubules and also intersitial fibrosis.

The pathological findings in the heart, as already stated, are a left ventricular hypertrophy of a concentric type. This, however, is only found in fairly longstanding cases. Usually present as well is a coronary sclerosis but this finding is probably coincidental and is not a result or a cause of the hypertension. It should be noted here that 70% of cases of essential hypertension develop cardiovascular complications. The brain usually shows a coexisting atherosclerosis of the cerebral vessels, but this again cannot be accounted for by the hypertension. 20% of cases of essential hypertension develop cerebrovascular accidents, 11% develop cerebral hæmorrhage ; 8% develop cerebral thrombosis, and 1% subarachnoid hæmorrhages. Histologically, the brain will show early or late signs of hyerptensive encephalopathy with œdema of the brain substance. This hypertensive encephalopathy is exemplified by multiple petechial hæmorrhages and areas of cerebral softening, which is followed by areas of necrosis. There are also periarterial collections of cells, usually lymphocytes and also small extravasations of red blood cells around capillaries and artioles.

It should be noted here that uremia as a complication of essential hypertension occurs in only eight to ten per cent of cases and is secondary to gross renal damage with failure of renal function.

Now, to consider the pathological changes in malignant hypertension. If a malignant hypertension is superimposed upon a benign hypertension of some years standing, then, of course, many or all of the above pathological findings will be present. The kidney in the gross is usually of normal size and weight but shows numerous small petechial hæmorrhages on the outside surface of the kidney and also on the cut surface as well. The external surface usually smooth and not granular or scarred. Microscopically there is a typical and characteristic picture which is seen best and is most commonly found in the afferent arterioles. This change is a necrotizing arteriolitis, showing eosinophilic smudging of the walls of these arterioles. The glomeruli may show focal necrotizing lesions which give rise to an intratubular and interstitial hæmorrhages. It must be pointed out that similar necrotizing arteriolar lesions may be found in other organs although usually most marked in the kidney.

At this point it would be profitable to say a word about the relationship between arteriolar sclerosis and hypertension, and more in particular about renal arteriolar sclerosis, which is usually the most marked of arteriolar changes. That there is a close relationship between renal arteriolar sclerosis and hypertension there is no doubt, because in all cases of essential hypertension of any length of time there is always arteriolar changes in the kidneys. This close correlation between renal arteriolar sclerosis and hypertension has given rise to four ideas concerning the possible cause and effect relationship. These are :

(1) Hypertension as the sole cause of arteriolar sclerosis ;

(2) Arteriolar sclerosis is an ageing process which may affect many organs, but which causes hypertension only when it affects the kidneys;

(3) Hypertension and arteriolar sclerosis are independent processes which often undergo parallel development and are capable of intensifying one another in the later stages ;

(4) Essential hypertension and arteriolar sclerosis have a common cause, but eventually when they both become established they aggrevate each other and set up a vicious circle.

Of these four ideas, number one is untenable because typical renal sclerosis is seen in non hypertensive patients, and also hypertension induced experimentally in animals will not produce renal arteriolar sclerosis.

Number two is based on the belief ,which has been put forward by Goldblatt, that the pathogenesis of essential hypertension is similar to that of experimental renal hypertension in animals, and this is one of the leading theories as regards

this problem today, and will be discussed more fully later. However, at this point it should be again emphasized that a small percentage of hypertensive patients in whom no renal arteriolar sclerosis can be demonstrated is seen at autopsy and moreover, renal arteriolar sclerosis does occur without hypertension also, it is only in the most severe cases of renal arteriolar sclerosis that there is sufficient renal ischmia to produce hypertension by the Goldblatt mechanism, and there does not appear to be any physiological evidence of significant degrees of renal ischemia in earlier stages of essential hypertension. However, this does not rule out the presence of humoral agents producing vasospasm with contraction of the renal arterioles and, thereby the production of the Goldblatt mechanism of renal hypertension.

The exponents of the third and fourth theories are in reality antagonists of the Goldblatt renal theory of hypertension and they constitute an important group of investigators who consider that essential hypertension is not directly renal in origin, and in, and in this Selye and Friedmann are promoting the adrenal cortex or the pituitary as the initial cause of hypertension.

Their views will be discussed more fully later.

Experimental Renal Hypertension.

The main and probably only hæmodynamic abnormality in the production of essential hypertension in the first instance, is an increase in the peripheral vascular resistance, the increase in left ventricular force probably being secondary to this. Therefore, the problem of any investigators in this field is to elucidate the cause of increased peripheral vascular resistance. Most workers agree that vasospasm as opposed to organic narrowing of the renal and possibly other vessels is the initial cause, but the great disagreement is as to what is the cause of the vasospasm. One large group of investigators consider that the cause is renal in origin. Therefore, at this step it will be helpful to consider Goldblatt's original experiments on the kidneys. First of all he devised a clamp by which the main renal arteries could be constricted up to any degree from only partial occlusion to complete occlusion with the least amount of trauma, and he found that by constricting (and not occluding) one main renal artery the blood pressure of the animal, both systolic and diastolic increased, but this increase was only temporary and after a certain time returned to normal. Also, if the experimental kidney was removed while the blood pressure was still elevated the nephrectomy was followed by prompt return of the blood pressure to normal.

Next, he found that if both main arteries were constricted, that is, partially occluded, the blood pressure increased and remained permanently increased, and also if one main artery was constricted and the other, that is the contralateral kidney, removed, then the blood pressure again remained permanently elevated. He also found that with moderate constriction and with permanently elevated blood pressure there is no significant alteration or renal excretory function.

Goldblatt points out that the constriction of the main renal artery has been his way of experimentally producing a state in the kidneys which intra-renal artery stenosis, or arteriole stenosis or constriction would produce, and it is not meant to stimulate partial occlusion of the main renal arteries as the cause of the hypertension. In other words, he considers that he is getting an intrarenal effect which is similar to the constriction of the smaller intrarenal vessles. He next found that if the constriction of the main renal arteries is increased then there is early impairment of renal excretory function with uremia, and at autopsy there are changes very similar to those seen in the malignant phase of essential hypertension. For comparison purposes the pathological changes in the tissues of animals with experimental renal hypertension will be recorded, and it is emphasised that these pathological changes are dependent on the degree of constriction of the main renal arteries.

(1) Moderate constriction of both renal arteries without changes in renal function, but autopsied after short period of hypertension. Histologically, there are no changes whatsoever both in the kidneys and other organs ;

(2) A prolonged period of hypertension : that is, caused by moderate constriction of both main renal arteries and no changes in renal function. Here there is moderate concetric hypertrophy of the heart and histology there is thickening of the media of the large and small arteries, but no intimal changes. This would indicate that there is no proof that so-called benign hypertension itself is a cause for generalized true, simple, initial arterial or arteriolar sclerosis ;

(3) Increased constriction of the main renal arteries producing the so-called malignant phase with renal insufficiency. Here there is necrosis and fibrinoid degeneration of the small arteries and arterioles similar to ,and probably the same as, the necrotizing arteriolitis found in malignant hypertension in the human.

Goldblatt draws several conclusions from these experiments and the pathological findings, which are put forward to support his theory of the renal origin of this type of hypertension. These conclusions are :

(1) Elevated intravascular pressure alone is not sufficient for the production of necrotizing arteriolar lesions, and this is borne out by the fact that they are not present in the dogs that have for many years had pronounced hypertension without accompanying disturbance of renal excretory function.

(2) Bilateral nephrectomized animals with profound azotæmia, but without hypertension do not develop thsee lesions therefore the chemical condition associated with azotæmia alone is not the cause.

(3) The lesions are not those of ischemic necrosis.

All one can gather from these three conclusions of Goldblatt is that in a type of experimental hypertension in dogs simulating malignant hypertension in man, there is a persistent hypertension with azotæmia and renal arteriolar lesions of a necrotizing arteriolitis type and that necrotizing arteriolitis cannot be caused by hypertension alone or a uremia alone or that the arteriolar lesions are in no way like those of an ischemic necrosis. But it can also be stated that hypertension and uremia do occur in certain conditions together, for example—in chronic nephritis, without necrotizing arteriolitis and therefore the final conclusion from this is that there is still some undetermined substance or condition or state which is necessary for the production of these lesions and possibly is the cause in the first instance of the hypertension as well. A group of South American workers produced a theory, which was substantiated by experimental evidence as well, of a renal humoral mechanism which could fit in with Goldblatt views. This work was based on the following theories :

(1) When renal cellular metabolism is disturbed it may be the source of a substance which elevates the blood pressure.

(2) The normal kidney is ordinarily the source of a substance which has the ability to produce hypertension, and the absence of destruction, or neutralization of this substance causes hypertension.

Their experimental work produced the following facts : Renal ischemia causes the production of a substance named renin from a precursor prorenin probably found in the lining epithelium of the convoluted tubules in the cortex. Circulating in the blood is a globulin called hypertensinogen which is activated by renin and producing a polypeptide with vasoconstrictor properties named hypertensin, (Hypertensinase is also named, which is capable of inactivating hypertensin). It is not certain that it is the renal ischemia which initiates this process ; or whether it is the reduction of the inter-renal pulse pressure, or whether it is the reduction of the blood flow through the functional components of the kidney, or whether it is due to the side tracking of blood through the juxta—glomeruler apparatus that stimulates the production of renin. It is now possible to compare the similarities and differences between essential hypertension in man and experimental renal hypertension and at the same time to emphasize the fact that these experiments and theories put forward by the workers who postulate that human essential hypertension in both the benign and malignant phases is primarily of renal origin. The similarities are :

(1) There may be no disturbance of renal excretory function in the benign phases of both man and animals.

(2) There may be pronounced renal excretory function disturbances with uremia in the malignant phase of both man and animals. This in experimental hypertension is dependent on the degree of constriction of the main renal arteries and it is conceivable that in human essential hypertension, the malignant phase is directly dependent upon the severity and distribution of the sclerosis and stenosis of the inter-renal arterioles.

(3) Cardiac action is increased in both, but cardiac rate and output, the blood volume and viscosity and the peripheral flow of blood and venous pressures remained unaltered. The pulmonic pressure is unaltered in both, (that is when there is no left ventricular failure.)

(4) There is no concentric left ventricular hypertrophy in both animals and man when the hypertension has been of some duration.

(5) There is medical hypertrophy of the aorta and medium sized arteries occurring in both again when the hypertension is of some duration.

(6) In the malignant phase of both there are the same typical vascular changes, that is arteriolar necrosis with fibrinoid degeneration giving rise to the necrotizing arteriolitis.

(7) The observation that an increase in weight increases the blood pressure is seen in both.

(8) The renal blood flow is reduced in most cases of human essential hypertension and is also present in experimental renal hypertension. (Both only after some duration of hypertension).

(9) Renin has only been demonstrated in the systemic blood of dogs and humans with acute hypertension and has not been found in chronic hypertension. From this last comparison we can assume that possibly the humoral mechanism is only effective in the acute stages of hypertension or in the later chronic stages there is a greatly increased sensivity to hypertensin or possibly there is another humoral mechanism involved, or possibly in the late stages of hypertension there is neurogenic basis.

It is extremely important to point out here that the Goldblatt experimental renal hypertension in dogs cannot be produced without the adrenal cortex and Goldblatt considers that the adrenal cortex plays its part by influencing the production of hypertensinogen, possibly exerted on the liver which is possibly the source of this protein.

The following main conclusion can be drawn from Goldblatt's experiments —That conditions simulating in many ways the benign and malignant phases of essential hypertension can be produced in dogs experimentally and the main facts necessary in the production of this hypertensive condition are :

(1) Blood flow must be reduced in both kidneys as one normal kidney is sufficient for the prevention of the maintenance of the hypertension, therefore there is some change produced in kidneys by the reduction in blood flow which either produces a pressor substance or the activator of a pressor substance or else prevents inactivation by the kidneys of certain pressor substances which are as yet unknown. However, the fact still remains that some other substance or condition or state of affairs is necessary to promote the initial renal change whether this be anoxia or reduced glomerular pressure or some other intra-renal change.

(2) The adrenal cortex must be present and therefore possibly some secretion of the adrenal cortex may have a pressor activity or produce in some way the initial renal changes necessary to start the Goldblatt mechanism

(End of 1st instalment)

Hospital Information, etc.

APPOINTMENTS VACANT

GUY'S HOSPITAL DENTAL SCHOOL

Applications are invited from registered Dental Practitioners for the following teaching appointments to commence duties in November, 1950 :

Casualty Department. 1 Registrar for attendance on 5 sessions a week.

Conservative Dental Surgery. 2 Registrars to attend on 3 sessions each per week.

Dental Department for Children. 1 Registrar for attendance on 6 sessions a week.

Salary in each case will be at the proportionate rate of £775 per annum in the first year. The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1., to whom applications should be sent not later than **Tuesday, 17th October, 1950**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Registrar to the Ophthalmological Department** (part-time). Duties to commence as soon as possible, for one year in the first instance. Salary at the proportional rate of £775 per annum with attendance on 2 sessions per week, in accordance with National Health Service Terms and Conditions of Service. Application forms may be obtained from the Dean, Guy's Hospital Medical School, S.E.1., to whom completed applications together with the names of three referees must be forwarded not later than **14th October, 1950.**

Applications are invited for the post of **Registrar to the Surgical Thoracic Unit** (part-time). Duties to commence on 1st November. Salary at the proportional rate of £775 per annum with attendance on 5 sessions per week, in accordance with National Health Service Terms and Conditions of Service. Applications forms may be obtained from the Dean, Guy's Hospital Medical School, S.E.1., to whom completed applications together with the names of three referees must be forwarded not later then **14th October, 1950.**

Applications are invited for the post of **Senior Registrar to the Surgical Thoracic Unit** (part-time). Duties to commence on 1st November. Salary at the proportional tare of £1,000 per annum with attendance on 5 sessions per week, in accordance with National Health Service Terms and Conditions of Service Application forms may by obtained from the Dean, Guy's Hospital Medical School, S.E.1., to whom completed applications together with the names of three referees must be forwarded not later than **14th October, 1950.**

Applications are invited for the post of Whole-time **Registrar to the Department of Psychological Medicine.** Duties to comm mence on 16th December, 1950, for one year in the first instance. Salary £775 per annum, i accordance with National Health Service Terms and Conditions of Service. Applications form may be obtained from the Dean, Guy's Hospital Medical School, S.E.1. to whom completed applications together with the names of three referees must be forwarded not later than **21st October, 1950.**

UNIVERSITY OF LONDON

ACADEMIC POST-GRADUATE DIPLOMA IN PUBLIC HEALTH

June, 1950.
P. R. Cooper

UNIVERSITY OF CAMBRIDGE

First M.B. Examination.
Part I *Inorganic Chemistry.*
Part II *Physics.*
Part III *Elementary Biology.*

Easter Term, 1950.

G. B. C. Jones has passed in all three of the above subjects.

UNIVERSITY OF OXFORD

Doctor of Medicine.
W. D. Brinton.

NOTICES

ST. LUKE'S DAY

October 18th

There will be a special service in Southwark Cathedral: on Wednesday, October 18th, from 1.15 p.m.—1.50 p.m. The address will be given by the Revd. G. L. Russell, M.B., Ch.B. All hospital staffs are specially invited to attend.

S.C.M.

There will be an Open Meeting on Friday 13th October, 1950, at 4.30 p.m., in the Chaplain's Room (Basement Keat's House) to which all interested are invited.

ROBIN ORR,
(Chairman, Guy's S.C.M.

The Student's Union "Fresher's Ball" will be held at the St. Pancras Town Hall on Thursday 12th October from 7.30 p.m. until 11.30-p.m. There will be the usual bar and buffet, and music for dancing will be played by Doug. Wood and his Band. Evening dress is optional.

Tickets are 7/- double; and 4/- single, and may be obtained Mondays to Fridays inclusive from the Student's Union Offiice in the old Pathology block, between 12.30 p.m. and 1.30 q.m., or at any time from members of the S.U. council.

GUY'S HOSPITAL L.T.C.

The Annual General Meeting of the Club will take place on Tuesday October 10th, at 1 p.m. in Classroom I. The business will include :

1. Election of new officers
2. Receiving of Captains and Secretaries reports.
3. Any other business.

It is sincerely hoped that all members of the Tennis Club will try to be present.

Eds. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1624 *21th October, 1950* *Ninepence*

PASSIM

"EVEN doctors whom I know to be excellent fellows assume this cloak of taciturnity in the evidently unilateral consulting room." So declared *Observer* contributor in an article deploring the doctor's lack of conversation when dealing with his patients. But is the affair, in fact, so one-sided after all ?

The majority of those seeking medical advice do so, undoubtedly, because they are ill. They may appear a little stupid on occasion, perhaps over-anxious or even unreasonably reticent. Still, they are fearful of fate and honestly want to be helped. A few, however, prove far from so ingratiating. They tend to fall into certain groups and the prolix whom Jennings seemingly is so intent upon encouraging, are probably the worst of all.

How some of them can talk, and what a histrionic art they can display ! History and symptoms are related in a torrent of description beside which the unrelenting stream of visitors pouring through the Colonnade at the appointed hour bears no more than a pitiful comparison. " Do you mind," as one disheartened houseman was heard to murmur, " if I continue writing, or will it interfere with your talking at the same time?" Arch-fiends among this category are the "matey customers." They indulge almost in back-slapping manoeuvres, while their favourite appellation is the familiar " Doc.," a term that is vocatively interposed between almost every phrase of their incessant conversation. The club-room or the mess, not the consulting room, is the place for the exercise of their particular attributes.

Then there are those of an obsessional tendency. What a treat they would provide in the pre-clinical class ! Every single event, even distantly related to their supposed illness, is catalogued and recorded. Their precision and assiduousness would put even the faithful Boswell into the shade.

Next come the superior ones. They probably have relatives, near-relatives or distant friends either in the profession or engaged in ancillary occupations. Or else they regularly con a well-thumbed copy of the " Home Doctor," originally acquired no doubt in exchange for a certain number of labels or wrappings off a favourite brand of tea the sales of which had been so stimulated at one time. So far as these individuals are concerned, not only the disease but also its treatment and management is obvious to them. They know all the answers beforehand, but they do the doctor the favour of listening to his opinions. Maybe this serves to endorse their own ideas and to fortify their conceit. In other instances it gives them an opportunity to pour scorn on what is otherwise the orthodox and unimaginative nonsense of the qualified practitioner.

Not to be forgotten, moreover, are the interrupters. They just cannot keep out of the conversation and are for ever offering corrections and comments throughout the subsequent discussion. On other occasions, of course, they heckle at public meetings.

The *bete noire* of all, however, is the official consultation—if it can be graced with such a term. The invitation to participate is unmistakable. It arrives in a franked envelope and is printed in poor type upon a dingy, neutral and characteristic paper. There is a heading, naturally (and a telephone extension number which suggests a switch-board of power-station proportions), followed by an almost peremptory and arresting address. " Sir," it runs, " The above-named patient has made application for benefit. He states that he received institutional treatment under your care. You are asked (*sic*), therefore, to give details of the diagnosis, progress and result under the following headings."

Then follows a series of questions in pigeon holes, at once naive and of searching intensity, such that all one's omissions are instantly revealed and all scope for divergence from the accepted order of things positively stultified. More often than not, this small office is regarded as a privilege, not to be tarnished by the filth of monetary transaction. Occasionally, though, a small fee is payable, according to prescribed scales, of course and only on receipt of a duly completed application to be deposited (in sealed envelope) at a particular address within a stated period of time.

Doctors, by nature, are people who mind their own business. When the car breaks down, they call in a motor mechanic and leave it to him ; when the pipes freeze they send for a plumber. And despite their frequently well justified scepticism they seldom interfere. Maybe they are, indeed, aloof in consultation. If so, that is only a feature of the detached and unbiassed approach which, initially, is of great importance. After all, the practitioner of to-day is virtually the essence of sociability compared with his predecessor of a bygone age. The lavish dress has gone, the gold-topped cane has disappeared and the point of Venice lace at the wrist will never again execute that grace of flow " likened to the swallow in flight." There is, nevertheless, scarcely a single member of the profession to-day who has not permitted himself some envy of his ancestors. Oh, that we too could assume that hauteur and, indeed, command that deference and respect which came so easily to them. But they knew such a little medicine and surgery and consequently made up for it in personal character. We pride ourselves on our knowledge and science, and probably in so doing have surrendered our souls in a misguided quest for ultimate truth.

The Biennial Dinner

AS far as origins are concerned the Biennial Dinner is apparently shrouded in the mists of memory and a mislaid minute book. That is not to say that the spirit which inspired it over many years is in any way daunted. Indeed, the Connaught Rooms on the evening of Friday, 6th October, provided not only "a sound of revelry by night," but also an occasion of good eating, good drinking, conviviality and tremendous good health.

The entry was auspicious, the grand stairway most appropriate and, by about 7.30 p.m., the anteroom such a scene of congestion, noise and pressure on the bar that it resembled the Parisian bourse in the frenzy of a sellers' market. Within a short space of time, however, decorum reigned supreme and Dr. H. C. Cameron took the chair as three hundred Guy's men sat down to dinner. To mention even a few individually is to risk the invidious. Qualification in the nineteenth century is nevertheless worthy of note and W. E. S. Cobb (1891), H. A. Munro, E. C. B. Ibotson (1894), Martin A. Key (1895), A. H. Spicer (1896) and K. B. Alexander (1898), were worthy representatives. South Africa, too, had its emissaries, for Franz Bekker of Pretoria, A. C. Copley of Durban, J. C. Gie of Cape Town and A. Havenga of Bloemfontein were there in person.

The toasts were few and formal and speeches were virtually banned completely—all to general advantage. For as the organised proceedings came to an end fellow mixed with fellow, anecdotes were exchanged and reminiscence granted ample indulgence. The spring, instead of the autumn, may in fact be a better time of the year for holding these gatherings, as some have already proposed. For 1950, at any rate the occasion proved an immense success.

Credit without stint is due to Mr. O. G. Morgan for the able and delightful way in which he carried the responsibility of Honorary Organising Secretary. He, too, we know, would be the first to admit the very great debt owed to Mr. J. H. Winston for his ready and invaluable assistance.

Richard Bright—A Bio-Bibliography

By WILLIAM HILL, A.L.A.

THE WORLD OF RICHARD BRIGHT

(Continued).

Digs were always a problem. Sir William Knighton writes in a letter of the period :—

" I never should have conceived it to be half as expensive ; everything is advanced ; my dinner, which was mere nothing at Bath, costs me 4s. 60 guineas a year for my board, but everything is found but washing. If you have 2 rooms, a bedroom and a sitting-room, you pay 10/6 per week and find yourself everything : coals, candles, meat and drink ; so I thought it most prudent to Board.

" I paid £26 6s. to be admitted to the hospital ; 12 guineas to attend Dr. Cline's Lectures and Dissection ; 7 guineas to attend Dr. Heighton [sic] on Midwifery ; 5 guineas Mr. Cooper's lectures on Surgery ; them at present attend with care and study with delight and attention every Branch of Knowledge that gathers reason and good sense."

LIFE AT GUY'S AND EDINBURGH, 1810-13

After his travels Bright entered Guy's Hospital. The entry in the Registers of the Medical School show that he registered there for 12 months on October 12th, 1810. On September 29th, 1810, he was elected a member of the Physical Society, being proposed by Dr. Laird and seconded by Dr. Curry. His election was confirmed at the next meeting, which took place on January 5th, 1811. These entries may be seen in the Minute Books of the Society preserved in the Wills Library. Other entries show that Bright was not a very enthusiastic member, for his name frequently appears among the ' absent and finable '. One of the Laws of the Society was that members absent without due cause were fined, and Bright seems to have made many contributions to the Society's purse in this way. According to the Minutes, he read a paper before it on January 25th, 1812. The entry reads : ' Mr. Bright read his paper on the use and abuse of bloodletting.' The paper was discussed by the Society at the next four meetings—that is, on February 1st, 8th, 15th and 22nd.

During this period he lived with one of the resident officers of the hospital. His teachers were William Babington and Dr. Curry for Medicine ; Dr. Marcet and Mr. Allen for Chemistry ; Henry Cline and Mr. (later Sir Astley) Cooper for Anatomy and Surgery. Mr. Travers gave the Anatomy Demonstrations and Dr. Haighton lectured on Midwifery and Physiology.

Like so many of his generation, Bright was greatly under the influence of Astley Cooper, who communicated to him his love of pathological anatomy. Pettigrew speaks of seeing a drawing of a diseased kidney which Bright made about this time, a happy foretaste of what was to come. William Babington was a man of wide culture, who founded the Geological Society and inspired Bright with a similar love of geology, so that he became a member of the Society and read two papers before it. Haighton's work seems to have interested him, for he refers to it in his Graduation Thesis. This was on the spread of erysipelas, and he points out the similarity between it and puerperal fever, the contagious nature of which, he says, was clearly demonstrated by Haighton. In a manuscript of Haighton's lectures in the Wills Library there occurs the passage : ' . . . Puerperal Fever . . . is supposed to be contagious, and so it most certainly is, although the fact is doubted by some practitioners.'

Again, in the published syllabus—' A Syllabus of the lectures on Midwifery delivered at Guy's Hospital and at Dr. Haighton's Theatre in St. Saviour's Churchyard, Southwark, 1808,' there is the note : ' The fever we now treat of is contagious, and facts prove that this contagion is of a very active kind.'

He returned to Edinburgh in 1812, where he remained until the following year. During this time he studied under Gregory, who, as Professor of Physic, was advocating free bloodletting, purging, cold effusions and general heroic methods of treatment. According to all accounts he was a fine lecturer, in a perpetual state of feud with many people, and as a teacher had a wide influence over the whole of Great Britain.

As well as his future profession he studied his hobby, geology, under Robert Jamieson, who occupied the Chair of Natural History for fifty years. He was the founder of a great school of Natural History, numbering many famous men among his pupils, including Darwin.

Bright became a member of the Royal Medical Society, the most important of the various societies of the University, and which was only eleven years younger than the Faculty of Medicine itself, being founded in 1737 by a group of students, the leader of whom was Cullen. Bright would seem to have taken more interest in this Society than he did in the affairs of the Physical Society, for he read two papers before it, one on Retroversio Uteri and the other on Gangrene, which latter was later published. Towards the end of his stay in Edinburgh he became one of its Presidents.

Another society of which he was a member was the famous Speculative Society, founded in 1764, which numbered Sir Walter Scott among its secretaries and which became the debating ground of many famous men. He resigned from the Society in February, 1813, saying in a letter to his father (quoted by Thayer): 'I found it impossible to pay any attention to the subjects, and therefore could reap from it no advantages.'

He graduated M.D. on 13th September, 1813, with his thesis 'De Erisipelate Contagioso', a subject which had long interested him. A paper of his on the same subject was read before the Medico-Chirurgical Society.

Following his graduation, he entered Peterhouse, Cambridge, where his brother was a Fellow. He remained only two terms before leaving, apparently finding the discipline of the college too much for his other interests. He returned to London, where he became a pupil of Bateman at the Public Dispensary, who at that time was continuing the work of his teacher Willan in the study of diseases of the skin. Also at the Dispensary was his old friend Dr. Laird, who had seconded his election to the Physical Society. Pettigrew says that at this time he worked hard at the practical side of Medicine, paying particular attention to pathological conditions. Always anxious to improve his knowledge of languages, he lived with a French Abbé, with whom he studied colloquial French.

TRAVELS OF 1814—1815

The summer of 1814 saw him on the Continent, this time on a visit to the Low Countries and Berlin. He saw all that interested him professionally in Holland and Belgium before going to Berlin by way of Leipzig and Frankfurt. In Berlin he paid many visits to the Hospital of La Charité, where he attended the practice of Ernst Horn and Christian Hufeland, who Garrison describes as 'one of the great philanthropic physicians who are true friends of the human race'. A friend of Goethe and Schiller, he edited four periodicals, and was a pioneer of Vaccination on the Continent. As well as Horn and Hufeland, Bright took the opportunity of meeting and listening to others of the eminent men of Berlin, including Heim, then at the height of his fame, Rudulphi, the author of a great treatise on Entozoa and Klaproth. Always willing to improve his knowledge of languages, he stayed with a schoolmaster so that he could study German.

In the autumn of 1814 he decided to visit Vienna, where the Congress was sitting, as he was 'naturally anxious to become a spectator of this most extraordinary assemblage'. At Dresden he heard that the Congress had broken up, and he spent several weeks in the city, but a report that it was to continue sent him off again on the road to Vienna. At Prague, he says, "I was hurried on by the report that a few days still remained; during my approach to Vienna the account changed at every town, and on entering the capital in the latter end of November we were told that the Congress would certainly continue for weeks, and probably for months; in short, that no one could foresee its termination."

He searched for a lodging and was soon successful. 'I soon procured a lodging in a busy and dirty inn. . . . It was built in the form of a hollow square; the communication between the rooms was by open galleries; and the internal space into which they looked was crowded with tilted wagons, shattered calashes and other swinging and springless machines, which will not submit themselves to the English nomenclature.'

These non-classifiable machines were later to be his means of travel in Hungary.

He spent the winter in Vienna, studying as well as sightseeing. Among his teachers were Hildenbrandt, who in 1810 had published 'Ueber den ansteckenden Typhus', in which he showed that he had some idea of the difference between Typhus and Typhoid fevers, at that period hopelessly confused. Ophthalmology claimed his attention, and he attended the practices of Georg Joseph Beer and Rust. Among the friends he made were Frank, the first exponent of modern public health measures, Jacquin, the Botanist, and Schreibers, the Geologist. Of Frank he left a charming portrait in his book showing him as a kindly old gentleman, well over seventy, but retaining a youthful interest in books and men.

Few things escaped his attention and he was an enthusiastic sightseer. On the one hand, he visited the famous Narrenthurm, the Lunatic's Tower, saying: 'It contains 300 patients, whose condition is far from being as comfortable as in many of the establishments for the insane which I have visited', while on the other he spent one of his first evenings at the Redoute, the place of public amusement, where most of the celebrities were wont to gather.

His description of the latter is a good example of the glamour that was Vienna in 1814-15. He was fortunate in having for a companion one who was able to point out to him the celebrities as they moved about the vast hall.

'There, do you see that little man with white hair, a pale face, and aquiline nose? He was almost pushed down as he passed the corner—that is the King of Denmark.' Again I shook my head in disbelief. 'Here the Emperor of Russia approaches.' I looked up and found the information true. His fine manly form, his round and smiling countenance, and his neat morning dress, were not to be mistaken; they were the same which, some months before, I had seen enter the church at Haarlem, to the thundering peals of the grand organ. I soon recognised the tall form, the solemn and grave features of the King of Prussia; and afterwards seeing these two in familiar conversation with the two monarchs, whose pretentions I had disputed [Emperor of Austria and the King of Denmark], was satisfied their claims were just. 'That short, thick old gentleman is the Grand Duke of Saxe Weimer, that young man near him the Crown Prince of Wurtemberg.' 'Pardon,' I exclaimed, stepping quickly aside. 'That was the Grand Duke of Baden,' said my monitor, 'whose toe you trod on; he is talking to Prince William of Prussia.'

He tried the public baths :—

' The system established for private bathing in Vienna, from its convenience, deserves particular notice ; for besides accommodation at the baths, called the Diana and Emperor's baths, you may at any time, by sending an order a few hours previously, be furnished from them with a warm bath in your own lodging. This is done by putting the hot water into small casts, formed of staves at least two inches in thickness, which are conveyed to any part of the city or suburbs upon carriages resembling our brewers' drays. A bathing vessel is brought at the same time, and placed in your chamber, and is filled from these casts, of which a sufficient number are left to be added to the rest, to keep up the temperature. When confined in these thick casts the water will retain considerable heat for twenty-four hours. The apparatus is removed by the same persons who brought it, and the whole charge does not amount to more than eighteenpence or two shillings, according to the distance of your abode from the public baths.'

He remained in Vienna until after Easter, which festival he describes in detail, and in March he set out for Lower Hungary. His first stopping place was Pressburg, where he spent a day sightseeing. From here he went to Freystadt in ' a very inferior conveyance, a small cart, without any cover or protection, hung on iron bars instead of springs or leathers '. It soon broke down, ' but was quickly repaired '. In addition, ' The road was very bad, and particularly when we passed a village the wheels sunk to their naves in mud.'

From Freyberg he travelled to Uremy, where he had hoped to see the Graf Hunyadi, but he was disappointed, the Graf not being in residence. However, his Director, M. Appell, entertained him. Among the Graf's pursuits was horsebreeding, and he was at that time engaged in the compilation of a racing calendar based on Tattersall's. Bright was most impressed by the efforts made to improve the stock of his horses, and he was ' highly gratified with all I had seen '. The next few days were spent in a long tour of the Graf's estates and seeing the best of Hungarian agriculture. It is in this and in subsequent chapters that we see one of the outstanding facets of Bright's character—his great sympathy for the less fortunate, and he goes to great lengths to explain how bad was the lot of the peasant under the lingering feudal system of Hungary.

After he had seen all he could of the Graf Hunyadi's estates, he continued his journey to Schemnitz, the mineral producing area of Hungary. Here, as usual, his letters of introduction made him well received, and he was taken on a long and conducted tour of the mines, where he saw the current methods of producing lead, copper, sulphur, arsenic and silver. At Kremnitz he was shown the Mint, and he records his amazement when he found that the high official who was his guide was convinced that Mexico was an English island and that the principle products of Great Britain were coffee, rice and sugar !

The outward limit of his journey was Pesth. He arrived in good time for the quarterly fair, of which he gives a good description. While in Pesth he gathered the commercial and social details which he gives in his book. With great thoroughness he collected together all the statistics relating to occupations and commerce, as well as any others that he thought might interest his readers and tabulates them so that the information is readily available. This, at the age of twenty-five, foreshadows his careful tabulations in his papers of later years.

He gives a good account of the scheme of medical education in Budapest. The lectures were still delivered in Latin and the course was planned on a five-year basis. The first year was devoted to anatomy, the natural sciences, general pathology and surgery. Physiology, more anatomy, operative surgery and obstetrics occupied the second. The third was spent in the study of pathology and pharmacology, and the last two years were given to medicine, surgery, veterinary surgery and forensic medicine. Bright was much impressed with the teaching, and considered that some of the practices could be adopted elsewhere.

His experiences of the baths of Vienna were not repeated in Pesth. He found them typical of the woodcuts of the Middle Ages. ' The apartment was spacious, the centre being occupied by a circular basin under a dome supported by pillars. . . . Here we beheld ten or twenty persons of each sex, partially covered with linen drawers and the long tresses which fell loosely from their heads, amusing themselves by splashing in the hot sulphurous water . . . in different corners were groups of naked families, enjoying their mid-day meal

. . . there was a row of half-naked figures, like those in the bath, on whom a poor miserable surgeon was practising the operations of cupping and scarification.' He goes on : ' Almost faint with heat, I was glad to make my escape.'

He had planned to return to England via Milan and Paris, but ' recent edvents in the South of France having deranged the plan ', he decided to re-visit Hungary. This time he explored the southern part of the country, passing through the cotton areas and visiting the Agricultural College of Keczthely. At Czurgo he lost his way in a storm, but eventually reached the village. There being no place to stay, he presented himself to the agent of Graf Festelis, who welcomed him with open arms and installed him in a room in the Graf's castle. In the morning, when it was light, Bright emerged from his room and was amazed to find prisoners in chains wandering about the house. On inquiring the reason for this, he was informed that the Graf's home also served as the local prison.

He travelled back to Vienna to find that Napoleon had once again plunged Europe into war. He finally reached Brussels a fortnight after Waterloo, and through the good offices of Dr. John Thomson was allowed to visit the hospitals in and around the city, which at that time held upwards of 20,000 sick and wounded. He would have stayed longer, but news reached him from England that the opportunity to study under John Pearson had come, and he hurried back to London to avail himself of it.

ACADEMIC

October		Exhibition. Surgical Department. "Research Conducted by the Department."
26th.	1.00.	Mr. Lawrie. Clinical Lecture.
	4.30.	X-Ray Demonstration. Gordon Museum.
27th.	1.00.	Dr. MacLean. Clinical Lecture. "Pleurisy."
	2.15.	Medical Department. Combined Round. Pre-clinical Classroom.
28th.	10.00.	Surgical Department. Clinico-Pathological Meeting. Anatomy Theatre.
31st.	1.00.	Dr. Baker. Clinical Lecture.
November		
		Exhibition. Surgical Department. "The Surgery of the Sympathetic Nervous System."
2nd.	4.30.	X-Ray Meeting. Gordon Museum.
3rd.	2.15.	Medical Department. Combined Round. Pre-clinical Classroom.
6th.	1.00.	Mr. Reading. Clinical Lecture. "The Chronic Running Ear."

SPORT

October		
28th.	Rugby 1st XV. *v.* Plymouth Albion.	(H.O.P.)
	Rugby "A" XV. *v.* Shelford.	(Shelford.)
November		
4th.	Rugby 1st XV. *v.* Old Blues.	(H.O.P.)
	Rugby "A" XV. *v.* Old Blues "A".	(Fairlop.)

Correspondence

SIR,—May I congratulate those responsible for the organisation of the highly successful Biennial Dinner held on 6th October, and in particular the Chairman, Dr. Hector Cameron, and the Secretary, Mr. Gayer Morgan.

If there is sufficient support I would like to suggest that the "Biennial Dinner" becomes the "Annual Dinner." All other hospitals hold their reunions each year and there appears to be no reason why Guy's should not do likewise. Some of us have, perforce, to miss this most enjoyable meeting of old friends and this means that there is a lapse of four years before there is another opportunity.

I trust that, if you see your way to publish this letter, there will be a spate of correspondence advocating the Guy's Annual Dinner, so that those behind the scenes, on whom the strenuous work of organisation falls, will consider their yearly efforts well worth while.

Yours, etc.,

E. LESLIE GRAFF.

9 Waymouth Street,
Portland Place, W.1

Recent Advances in the Pathogenesis of Essential Hypertension

R. G. WALTON, M.B., B.S.
Associate Resident in Medicine, Vancouver General Hospital.

(Concluded)

PARTICIPATION OF HEPATORENAL VASOTROPIC FACTORS IN EXPERIMENTAL RENAL HYPERTENSION.

Shorr and Zweifach have come to the assistance of Goldblatt in his theories on the renal cause of essential hypertension and their work starts with the investigation of the shock syndrome in which they noticed two phases. Firstly an initial compensatory phase related to reduction in blood volume and secondly, a decompensatory phase related to inadequate preipheral blood flow. The initial compensatory phase of shock is characterised by hyper-reactive conditions of the peripheral blood vessels thus reducing the capacity of vascular tree without drastically curtailing the blood supply to vital tissue. With prolongation of the shock and therefore the profound hypotension which goes with it, the hyper-reactivity of the metarterioles and precapillaries is superceeded by hypo-reactivity with loss of the restraining compensatory influences on the peripheral circulation resulting in a diversion of increased amounts of blood into the capillary side channels and therefore inefficient venous return. This state of hyporeactivity of the metarterioles and precapillaries is the decompensatory phase of shock.

Blood born factors were found to be responsible for these vasoexcitor and vasodepressor states and therefore the responsible agent in the hyper-reactive or compensatory phase of shock was called V.E.M., (that is vasoexcitory material), and in the decompensatory or hypo-reactive phase of shock was called, V.D.M., (i.e. vasodepressor material). It was found that V.E.M. was produced by the renal cortex and V.D.M. mostly from the liver but also from the spleen and skeletal muscles and experimentally it is necessary that these organs should be in anærobic state before they can produce V.D.M. or V.E.M. and conversely, as soon as these tissues become ærobic, V.D.M. and V.E.M. become inactivated. However, the inactivating mechansims were seen to be progressively damaged by previous exposures to anærobic conditions and this is the reason for the depression of the inactivation of V.D.M. in the decompensatory irreversible stage of shock.

Thus previous anoxia of the renal cortex results in the production of V.E.M. ærobically as well as anærobically and also impairment of the renal capacity to inactivate renal V.E.M.

Next, the vasotropic content of blood during acute and chronic renal hypertension was investigated, and in dogs, within thirty minutes of partial constriction of both renal arteries, V.E.M. appeared in the renal vein blood matter later in the peripheral blood, V.E.M. then seemed to disappear from the blood when the blood pressure had become stabilized. The V.E.M. also disappeared from the blood in cases where one main artery had been clamped and the blood pressure had fallen again to normal, and clamping of the second renal artery resulted in the reappearance of the V.E.M. and when stabilization of the blood pressure occurred at the new hypertensive level, then the V.E.M. again seemed to disappear. When the blood pressure becomes stabilized the V.E.M. does not actually disappear but is merely neutralized by an increased production of V.D.M. and therefore there is a new equilibrium established between V.D.M. and V.E.M. of increased concentrations of both factors. This occurs also in essential hypertension in man, but the persistence of the hypertension after the blood has become neutral is not yet known.

It is now interesting to consider the relation of the adrenals to the formation of V.E.M. The renal capacity to form V.E.M. under anærobic conditions was found to become progressively impaired and in most cases abolished in adrenalectomized animals. A high salt diet did not improve this state of affairs, therefore it can be seen that the adrenal cortical mechanism is necessary for :

(1) The maintenance of blood pressure and hypertension.
(2) The production of renal V.E.M.

V.E.M. has been shown to be a separate entity from renin or hypertensin and it should be pointed out that V.E.M. appears to influence a certain part of the vascular bed distal to those arterioles in which hypertensin exerts its constrictor effect. Now, V.E.M. persists in the blood stream in the chronic phase of hypertension whereas renin and hypertensin do not. Therefore, it has been shown that there is at least another humoral mechanism which is concerned with the maintenance of blood pressure and possibly the production of essential hypertension and in this particular case it would appear that V.E.M. was more related to the production and maintenance of chronic hypertension such as essential hypertension than of the more acute varieties of hypertension where renin and hypertensin was found.

THE GENERAL ADAPTATION SYNDROME OF SELYE.

When an animal is subject to stress, stress of any kind, such as cold, trauma, infections, toxic reactions and emotional upsets, then the body produces first of all the alarm reaction and it consists of the sum of all the nonspecific systemic phenomena elicited by sudden exposure to stimuli to which the organism is not adapted, and the alarm reaction consists of a state of shock which calls forth adrenal cortical increased function. If the stress is prolonged, then the body produces the stage of resistance which is the sum of all nonspecific systemic reactions elicited by prolonged exposure to stimuli to which the organism has acquired adaptation. This is protracted counter shock. If the stresses are continued for a greater legnth of time, then the body passes into a stage of exhaustion, and this is the sum of all nonspecific systemic reactions which ultimately develop as a result of very prolonged exposure to stimuli to which adaptation has been developed but could no longer be maintained.

The sum of these three stages in the reaction of the body to all forms of stress is known as the general adaptation syndrone. During the alarm reaction the body responds by increased production of hormones from the adrenal cortex. As a result of this increase in hormones there is a rise in the general resistance of the body to stress which the body has been subjected. Thus the body has become adapted from a state of alarm or shock to that of a state of resistance. Selye maintains that this adaptive mechanism may itself become deranged or maladapted, and he has produced in animals, both by continuous exposure to stress and also by overdoseage of desoxycortisterone acetate, that is DOCA, the experimental counterparts of hypertension, nephrosclerosis, periarteritis nodosa, rheumatic fever and atherosclorosis. These lesions are more easily produced if the animal is previously sensitized by high sodium diet and unilateral nephrectomy. It should be pointed out here that DOCA is not probably a naturally found hormone in the adrenal cortex, but more recently desoxycortisone, which is naturally occurring in the adrenal cortex, also produces these lesions if given in overdose amounts.

Similar lesions can also be produced by giving crude anterior pituitary lobe corticotrophic extracts. If the adrenal cortex is examined during the general adaptation syndrome, it will be seen that during the alarm reaction there is hypertrophy of individual cells with increased activity of the gland and examination of the adrenal cortex of a patient who has died from hypertension often shows a bright yellow and thickened adrenal cortex sometimes with necrosis which is reminiscent of that seen in animals during the stage of resistance Removal of the pituitary gland prevents these changes in the adrenal cortexe during the general adaptation syndrome.

At this point it should be explained that the adrenal cortical hormones may be broadly divided into two main groups :

(1) The glucocorticoids, such as corticosterone and cortisone ;

(2) The mineralo corticoids, such as DOCA or desoxycortisone.

The two differ markedly in their effect on the organisms. In experimental animals Selye found that corticosterone increased where deoxycorticosterone diminished the resistence to traumatic shock. Overdosage with desoxycorticosterone itself may induce the conditionsas mentioned above, and especially if the animal has undergone unilateral nephrectomy and is given a diet with a high salt content. It is suggested, therefore, that stress causes, either the adrenals to liberate cortical hormones or that it induces the pituitary to liberate the hormone which has a trophic effect on the adrenal cortex, and that in turn

liberates cortical hormones, and that if there is a disproportionate overproduction of the mineralo corticoids then the diseases of adaptation may appear. In other words, these diseases including essential hypertension, may be the result of an inbalance between gluco and mineralo corticoids, either the presence of excess mineralo corticoids or some general disturbance of steroid metabolism.

Then, to briefly reiterate, experimental hypertension can be produced in animals by :

(1) The continued exposure to stress, or
(2) By overdosage with desoxycorticosterone acetate or other mineralo corticoids.

Therefore, in man hypertension may occur as a result of chronic exposure to nonspecific damaging agents such as excessive cold, intoxications, chronic infections and what is more important if we study the natural history of essential hypertension, is that of excessive amounts of emotional strain. Therefore, probably stress stimulates the anterior pituitary to liberate the adrenal corticotrophic hormone which in turn stimulates the adrenal cortex to produce and liberate its corticoid hormones. However, if the stress continues then there may be an overproduction of corticoid hormones or an excessive production of mineralo corticoid hormones, or the animal or man may pass into the stage of exhaustion whereby there is a disturbance of the steroid production in the adrenal cortex.

As a result of inbalance of the production of mineralo corticoid hormones and gluco corticoid hormones or an abnormal production of these the diseases of adaptation are produced.

DOCA Hypertension and its Relation to the Kidney.

Next comes the work of Friedman, which follows on from the above basic work of Selye. The rise in blood pressure in rats treated with DOCA and Saline appears to be independent of alterations in renal function and occurs considerably before the onset of renal ischemia ; that is, it is similar to essential hypertension in man. In these experiments it was found that, even when renal function was undisturbed by DOCA, the kidney weight was increased ; that is normal renal function appeared to be only maintained by renal hypertrophy. In rats so treated it was found that the blood pressure was significantly elevated only twenty-five days after the start of the experiment and remained so for fifty-one days of treatment. Upon cessation of treatment, either of twenty-five days, thirty-seven days or fifty-one days, the blood pressure fell promptly to normal level.

In these same experimental animals the renal function was undisturbed after twenty-five days, and after thirty-seven days of treatment with DOCA. fifty-one days of treatment resulted in a significant increase in glomerular filtration rate and in the filtration fraction. However, these disappeared after cessation of treatment.

These findings suggest as other previous experimental findings have—that the elevation in blood pressure is independent of renal functional derangement, and the fact that the change in renal function occurs only late in the course of the DOCA treatment would suggest that it was caused by the hypertension. This, however, is contradicted by observations in renal weight. It is found that elevation of the blood pressure was accompanied by an increase in kidney weight at the earliest date studied, while the restoration of the blood was accompanied by a return toward normal kidney weight. Since renal function was maintained only at normal levels despite increase in size, it can be assumed that this is a compensatory hypertrophy. There is then a definite correlation between renal mass and elevation of blood pressure ; the higher the blood pressure the greater the weight of the kidneys. Therefore, the kidney must in some way be involved in DOCA produced hypertension right from the beginning of the process.

Since the kidneys are apperently involved immediately following DOCA administration, then there are two possibilities concerning the mechanism :

(a) The kidneys liberate a pressor substance following their stimulation by DOCA.
(b) The kidneys are actively concerned in the excretion and possible inactivation of DOCA like materials.

As regards the first possibility, the blood pressure was significantly elevated in DOCA treated unnephrectomized rats, and within twenty-four hours after

nephrectomy of the second kidney there was a very significant elevation of blood pressure. If the kidneys were producing pressor substances, then removal of the kidneys should cause a decrease in blood pressure.

As regards the second possibility, DOCA treated rats were bilaterally nephrectomized before they had become hypertensive ; that is after twelve days. Twenty-four hours after the removal of both kidneys the blood pressure was elevated in both DOCA treated and untreated nephrectomized animals, but rats in the DOCA treated group, and only three out of nine of the untreated group, had elevated blood pressures.

Thus, it would seem unlikely from the above that kidney hypertrophy exerts a stimulated production of renal pressor material, but it is reasonable to suggest that the kidney is actively concerned with the excretion or possibly inactivation of the steroid. This also explains the theory that the kidneys normal forms an antihypertensive factor, and at present one cannot distinguish between a renal antihypertensive factor and the renal destruction of pressor agents. It is now known that small doses of DOCA will elicit hypertension in intact rats not otherwise sensitized and, therefore, there need not be gross hypersecretion of the adrenal to produce hypertension and further experiments by Friedman have now shown that self-sustained elevated blood pressure can be produced in a certain number of unnephrectomized rats if DOCA and saline are given for twenty-eight days, and these rats showed pathological changes as opposed to the normal findings of the controlled rate. These findings consist of : increased weight in the heart, an increased weight in the kidney, a thickening of the arteriolar walls, both renal and generalized, with a diminution in lumen, and also a few sclerosed glomeruli. After the discontinuance of intensive DOCA treatment is a permanent self-sustaining hypertension developed in some animals. Therefore, there are two possibilities. The first that Goldblatt clamps are being applied chemically to the renal vessels. In other words, there is an increased tonicity with spasm of the renal vessels, produced by DOCA or DOCA stimulated substance. This would initiate the Goldblatt mechanism and thus produce a vicious sircle. The second possiblity is that there is damage to the renal tissue by the DOCA or DOCA stimulated substance and as a result of the damage renal tissue is unable to handle excess DOCA or DOCA like substances and, the fact that the blood pressure of DOCA treated animals rose to new heights after nephrectomy suggested that the kidney normally antagonized the pressor action of DOCA or DOCA like substances.

Now, on the basis of this, Friedman supplies a hypothesis including essential hypertension, adrenal types of hypertension, chronic renal hypertension of the Goldblatt type and the present experimental self-sustaining hypertension. The hypothesis is that hypertension may be expected to arise whenever the balance between (1) production of an adrenal DOCA like pressor material and (2) its destruction by the kidney is interferred. For eaxmple, in chronic hypertension induced by constriction of the renal artery the damaged kidney cannot properly cope with even normal amounts of the adrenal material. On the other hand, the normal kidney cannot cope with the excessive amounts of pressor substance produced in Cushing's Syndrome and, therefore, hypertension results. This also explains the falling pressure which occurs when the adrenal cortex is removed on an animal with constriction of the renal artery. The observation that removal of a constricted kidney late in the course of renal hypertension is not followed by reduction in pressure will be explained on the basis of the pressor material being adrenal in origin rather than renal, and the damaged kidney not being able to deal with it. Other workers have observed that if in the late phase of renal hypertension the constriction was removed the blood pressure falls, but removal of the constriction at any stage might be expected to improve the renal handling of the adrenal pressor agent, either partially or completely, depending on the amount of renal damage. Similarly pathological involvements of the kidney will be accompanied by hypertension only in those cases where the specific mechansim for handling of pressor material is affected.

Then, it is now conceivable that the kidney normally in addition to its excretory function also exerts a function which is concerned in the maintenance of normal blood pressure levels. Hypertension of renal origin according to this view is not due to liberation of a pressor agent, but results from a failure of the kidney to inactivate or excrete a circulating adrenal pressor material.

Selye's view that overproduction of the adrenal cortex occurred in stress an may lead to hypertension fits this hypothesis in that it is one of the two ways in which hypertension can be caused. Histologically, the lesion which is produced in experimental DOCA hypertension appears to be in the earlier phase similar to those found in the later stages of essential hypertension and in the more severe cases or later stages of DOCA experimental hypertension the lesions are comparable to those of malignant hypertension or those found in periarteritis nodosa.

Summary and Conclusions.

Finally, the situation can now be summed up as follows: The alarm reaction (i.e. the first phase of the general adaptation syndrome) is produced; as a result of this is a stimulation of the anterior pituitary gland, and the adrenal cortical trophic hormone is liberated and in turn stimulates the adrenal cortex. The adrenal cortex produces the mineralo and gluco corticords. The gluco corticoids produce a resistance in the organism and provide defence. The mineralo corticoids have no effect as regards the defence or resistance of the body and are possibly concerned with the maintenance of blood pressure and salt and water metabolism. Generally speaking the mineralo corticoids and the gluco corticoids exert a neutralizing effect on each other. If the stress continues then the organism from the state of resistence to the state of exhaustion and there would appear to be a disproportion in the production of mineralo and gluco corticoids, and as a result there is either a comparative increase or actual increase in the mineralo corticoids or similar abnormal steroids are produced. As a result of this maladaption, then the diseases of adaptation become a reality.

The further mechanism of hypertension may be as follows; and it should be remembered that the kidneys are involved right from the start of the process, because as soon as there is elevation of blood pressure there is increase in weight in renal tissue. The kidneys normally inactivate or excrete pressor substances found in the circulation. However, if the pressor substances are too great or the kidney function is reduced in this respect, then hypertension results. At the commencement of hypertension there is no measurable decrease in renal function, but it has been suggested that in the state of exhaustion there is an increased amount of mineralo corticords which exert a pressor effect and there may be too much of this substance to be dealt with adequately by the kidney. Also, these pressor substances in the mineralo corticoids produce a constriction of the intrarenal vessels. As a result of this the Goldblett mechanism of renal hypertension is initiated. In this mechanism of renal hypertension, renin, is produced from prorenin in the convoluted tubules of the renal cortex. Renin passes into the general circulation, and there activates circulating hypertensinogen, giving rise to hypertensin, which is a pressor substance. As a result of this a vicious circle is instituted. However, renin and hypertensin are only found in the blood in the acute stages of the onset of hypertension, and never in chronic hypertension. The mineralo corticoids, besides their pressor effect ,also have a direct effect on the blood vessels. However, these changes do not occur directly, but take time and they consist of organic changes in the vessels which may be similar to these seen in benign hypertension or similar to those seen in malignant hypertension. These organic changes themselves will also cause constriction of the renal vessels and reduction in the circulating blood and eventually, of course, produce a decrease in renal function both from an excretory point of view and also as regards inactivation of pressor substances. Although renin and hypertensin are not found in the blood of people with essential hypertension, and are not found in chronic experimental renal hypertension, it is known that the hepato-renal vasotrophic factors, that is V.E.M. and V.D.N., are present in these conditions. Therefore, the hepato-renal pressor factors may play a part in the chain of events following the maladaption of the adrenal cortex in states of stress, although as yet V.E.M. has not been found in DOCA hypertension. And finally when the whole mystery of the production of essential hypertension is completely unravelled, then it will probably be found that there are numerous causes of this clinical syndrome, and that probably many chemical and hormonal mechanisms participate in its production. However, the experimental renal hypertension of Goldblatt, the hepato-renal vasotrophic factors of Shorr and

Zweifach and most recently the experimental DOCA hypertension and stress hypertension of Selye and Friedman have certainly thrown a great deal of new light on to the mechanism of the production of hypertension.

Bibliography.

1. Goldblatt, Annals Int. Medicine, 11 : 69, 1937.
2. Selye and Hall, *Arch .Math.*, 36 : 19, 1943.
3. Selye. *Can. M.A.J.*, 50 : 426, 1944.
4. Selye. *J. Clin. Endocrin.* 6 : 117, 1946.
5. Evelyn. *McGill Medical Journal*, April, 1947.
6. Shorr. *American Med. Journal*, 4 : 120, 1948.
7. Page. *American Heart Journal*, August, 1949.
8. Selye. Test Book of Endocrinology. 2nd Edition, 1949.
9. Selye. *C.M.A.J.*, : 61553, 1949.
10. Friedman. *Journal Exp. Med.*, 89 : 631, 1949.
11. Friedman. *C.A.M.J.*, 61 : 596, 1949.
12. Smirk. *B.M.J.*, May 7, 1949.
13. Selye, *B.M.J.*, Jan. 28, 1950.

School of Nursing

The annual presentation of prizes and medals took place on Thursday, 28th September. Matron received a large number of visitors in the Nuffield Nurses' Home, where an enjoyable tea was served at 4 p.m. It was a great pleasure to welcome so many parents, representatives of other hospitals, members of the Staff and their wives, and members of our Board of Governors.

After tea, the Physiology Theatre, kindly lent by Professor Spurrell, was soon filled to capacity. Mr. Slesinger, Vice-Chairman of the Board of Governors, presided and gave a short address of welcome, thanking Lord Horder for finding time, among his many duties, to visit a rival hospital to his own.

The Sister Tutors then gave a brief report on the year's work and Sister Duncombe mentioned some of the recent changes in the work and training of the nurses in the wards. Matron also welcomed Lord Horder, and told us of the great service he had performed for the Nursing Profession as Chairman of the Nursing Reconstruction Committee which resulted in what is usually known as " The Horder Report."

The Superintendent, Mr. Doherty, pointed out to the visitors that on any occasion of this kind only a small proportion of the Nursing Staff could be present, as the patients required nursing throughout the twenty-four hours of the day. He reminded us how much the hospital depended on all the nurses though only a few were able to enjoy the occasion.

The prizes were then presented by Lord Horder :—

Pharmacology :

1st Prize	*2nd Prize*
M. Dawson	P. Taylor
J. White	J. Taylor
P. Sneezum	E. Ireson
M. Workman	J. Dodd

Surgery and Surgical Nursing :

1st Prize	*2nd Prize*
E. Riley	M. Dawson
L. Sankey	E. Everitt
E. Ireson	N. Finch
M. J. Carter	M. Banham

Medicine and Medical Nursing :

1st Prize	*2nd Prize*
M. A. Thompson	J. Coote
F. Ramage	J. Clarkson
P. Slade	M. L. Thomas

Special Diseases :

1st Prize	*2nd Prize*
B. Brunt	S. Gillespie
E. Bailey	P. Allen, J. Clarkson
	A. Calderwood, P. James, M. L. Thomas

Guy's Final Examination :

1st Prize	*2nd Prize*
K. Faber	S. Barclay
E. P. Flanagan	A. Graham-Davies
E. Perry	V. J. Appleton
	K. Marshall

Medals : Awarded to the nurses obtaining the highest aggregate number of marks in all the examinations and taking into account their record of practical work.

Gold Medal	*Silver Medal*	*Bronze Medal*
K. Faber	D. Bicknell	G. Rosenau

Butterworth Medals : Awarded after seven years' consecutive service to :—

Edith M. Humphries	Amy S. Killick
Pamela C. Asquith	Constance O'Toole

Lord Horder's address followed. He spoke of the changes which are coming in the Nursing Profession and of the opportunities of service, not only to the patient but to the profession as a whole, which are open to the nurse of to-day. He reminded us of our special responsibilities as representatives of one of the world-famous training schools, and said that under whatever authority and in whatever branch of nursing we might be working, three things must never be forgotten—the patient, the human aspect and " informed treatment."

A vote of thanks was proposed by Nurse Appleton and seconded by Nurse Marshall. D. M.

NURSING NEWS

Guy's nurses will be proud to know that there are six Guy's nurses on the new General Council. Miss D. M. Smith, Matron, Miss C. F. S. Bell, Miss M. Marriott and Miss D. A. Lane. Miss D. L. Holland, Miss F. E. Lilly White, appointed by the Minister of Health. We congratulate Matron on her re-election to the Chairmanship.

SWIMMING GALA

The Nurses' Swimming Gala was held in the Nurses' Home on Tuesday, 26th September, and was thoroughly enjoyed by both competitors and spectators.

We would like to thank Mrs. Hughes who judged the Style Contest and has coached the nurses throughout the summer.

Matron very kindly presented the cups and prizes.
The Cups were won as follows :—

The Challenge Cup for Style Swimming and Diving by Miss P. A. Duncan;
The 100-Yard Challenge Cup by Miss P. A. Lamerton ; and the
" Margaret Hogg " Challenge Cup for Swimming by the Physiotherapists after a very exciting relay race.

Finally, may we express our thanks to Sister Milligan who arranged the Gala so successfully. F. E. B. & B. M. B.

Sport

ASSOCIATION FOOTBALL

Guy's Hospital 2 *v.* Parkfield 2
at H.O.P.
Saturday, September 30th

Guys entertained Parkfield, who are a force in the Harrow and Wembley League, in a friendly game at H.O.P.

Forced to field a somewhat weakened team, the Hospital were soon on the defensive but rather against the run of play scored first when an excellent cross by Harris was converted by Cornhill running in at top speed. This lead was short-lived because Parkfield scored two quick goals, the first from a cross to an unmarked forward standing three yards out and the second from an excellent head.

The second half showed an amazing change and Guy's gradually took complete command of the game and only bad luck and the obstinate framework of the visitors' goal kept Guy's addition to their total to one. An extremely good shot by Leckie being beautifully saved and efforts by Cornhill and Harris struck the woodwork.

After a shaky beginning Guy's fully justified their share of the spoils. The main points of the game being Matthews' tireless efforts and Wylie's continued improvement.

Team : A. Fearn ; T. Rogers, J. Wylie ; D. Matthews, D. Allan, J. Walker ; B. Cornhill, B. Blair, D. Harris, C. Leckie, D. Oldfield.

Wednesday, September 27th

Guy's Hospital 5 *v.* Croydon Athletic 1

Guy's visited Croydon Athletic in a friendly match and after playing fast open football finished the victors justifiably by 5—1.

The first goal came after ten minutes when a cross by Fearn was turned into the net by a defender, being harrassed by three Guy's forwards. A second goal soon followed when Harris scored an opportunist goal with a low shot.

Croydon Athletic came more into the picture as Guy's slackened off somewhat, and it was no surprise when their left winger rounded the back and cracked the ball into the net off an upright. They very nearly scored again but Lipington bobbed up when all seemed lost and headed clear.

Half-time came with the score at 2—1.

With the start of the second half Guy's regained the ascendancy they had momentarily lost and a beautifully timed shot from the edge of the penalty area by Leckie left the goalkeeper helpless. Another bustling effort by Harris and a penalty by Matthews rounded off the scoring and the final whistle came with Guy's attacking and the crowd showed their approval by a round of applause as the team left the field.

Team : M. Lyons ; D. Lipington, J. Wylie ; D. Matthews, D. Allan, A. Swift ; A. Fearn, P. Harris, D. Harris, C. Leckie, G. Willcocks.

Guy's *v.* Old Stationers

Away. *Result*—Draw 4—4.

Saturday, 7th October, 1950.

In the first league match of the season Guy's gained one point and but for some unfortunate lapses would have returned with two.

Old Stationers were the first to score, when a cross from their right wing was only partially stopped and their inside-left was presented with a gift.

Shortly afterwards, Matthews equalised with a penalty awarded for a foul on Cornhill. Leckie increased the Hospital's score when a long shot, somewhat surprisingly, went through the goalkeeper's legs. This same player made the score 3—1 when he cleverly placed the ball in the corner of the net although harried by two opponents. Another shot from the same player rattled the crossbar and almost before the echo had died away disaster overtook the Hospital side and the healthy lead was lost.

Old Stationers were awarded a penalty from which they scored and a poor throw from the goalkeeper was immediately returned to him via the net.

Ten minutes after half-time Old Stationers took the lead and were then awarded another penalty which Lyon brilliantly saved. All seemed lost but Guy's pulled themselves together and settled down to play some very nice soccer and they justly equalised when Fearn followed up his shot that had been partially saved and bundled it into the net.

The end came with the score at 4—4.

Team : M. Lyon ; P. Southgate, J. Wylie ; D. Matthews, D. Allan, D. Harris ; A. Fearn, B. Cornhill, K. Watmore, C. Leckie, D. Oldfield.

Guy's *v.* Old Lyonians

At H.O.P. *Result*—Won 3—2.

Saturday, 14th October, 1950.

The match opened with Guy's attacking and the interpassing between the forwards and their link with the half-backs augured well for the result. Watmore opened the scoring when a sliced shot by Cornhill presented him with a lovely pass. The second goal by the same player was the result of grim determination in chasing a long ball and beating the centre-half to it. Watmore completed the hat-trick when he finished off a movement started by Matthews, who gave a precision pass to the right winger whose centre was calmly put to the fullest use by Watmore.

Alas, in the second-half Guy's, thinking their lead was sufficient, started to try and play too cleverly and were only rudely shaken out of their attitude when the score reached 3—2. An opposing defender put a shot from Fearn in the net but the referee adjudged Watmore offside.

The points of the play were the continued improvement of Wylie, a player promoted from the reserves this season, who blends very well into the team, Watmore's merited "hat-trick," and of course Matthews' usual 90-minute performance in either breaking up an opponent's raid or initiating a Guy's advance. The team were delighted to see our President, Mr. R. D. G. Gain, once again on the touch-line.

Team : M. Lyon ; P. Southgate, J. Wylie ; D. Matthews, D. Allen, A. Prince ; A. Fearn, B. Cornhill, K. Watmore, C. Leckie, D. Oldfield.

RUGBY

September 30th, 1950

Guy's 1st XI *v.* Old Whitgiftians

Lost 6—12

This game was played at South Croydon as the opening fixture of the Old Whitgiftian's Golden Jubilee year.

Owing to the rain the conditions were heavy and the ball became unpleasantly slippery and extremely difficult to handle. Despite this, many good three-quarter movements were seen, but unfortunately these mainly came from the Old Whitgiftian's backs.

Playing up the hill in the first half Guy's were very hard pressed to keep their line intact, owing to the O.W. pack gaining the ascendancy in the line-outs and the set scrums.

The Old Whitgiftians opened the scoring through a break through in the centre for a try that was not converted. Their second score came shortly afterwards through a dazzling run by Martin Turner who went over wide out. Thus half time came with the score at 6 pts.—nil.

Immediately after the interval Guy's went away and Bellis picking up a loose ball went over for an unconverted try. Showing more fire Guy's, kept on the attack and from a blind side break Rademan went over to make the score 6 pts. all.

After these quick scores the Old Whitgiftians pressed hard and eventually took the lead with a dropped goal which was followed by another good try, thus giving them a well deserved victory.

Saturday, 23rd September, 1950

Guy's Hospital *v.* Blackheath

Lost 0—16

Played at Blackheath

Guy's won the toss and chose to play against the wind in the first half.

The Hospital started well and the forwards carried the ball into their opponents' half.

Soon after this, one of the Blackheath three-quarters ran right through the Hospital team to score out near the touch line. This try was converted.

With the score at 5—0 the team tried even harder, when checked and the ball was heeled. However, the three-quarters were unable either through faulty passing or bad handling to break away or to form a movement.

Half time was called with the score at 5—0.

In the second half the backs still seemed unable to settle down and though individually there was some good play there were no movements.

About 10 minutes after the start a Blackheath three-quarter went down the touch line to score in the corner from an opening by Philips.

From a scrum in the middle of the field after a Blackheath break through a Blackheath forward broke away to score under the posts. The try was converted.

With about 5 minutes to go and the score 13—0, the Hospital forwards tried further break throughs but were driven back and from a 5-yard scrum on the Hospital try line the ball was heeled, but the kick for touch rebounded off a Guy's man over try line, to be pounced on by a Blackheath forward to make the score 16—0.

Hospital Information, etc.

PAPERS BY GUY'S MEN

Brock, R. C. Bronchial Carcinoma. *Brompton Hosp. Rep.*, 1949, **18**, 1.

Brock, R. C. The Surgery of Pulmonary Stenosis. The Alexander Simpson-Smith Lecture Delivered at the Medical Society of London. *Brompton Hosp. Rep.*, 1949, **18**, 8.

Doubleday, F. N. The Pharmacology of Local Anæsthetic Drugs. *Dental Rec.*, 1950, **70**, 196.

Harley, H. R. S. Subphrenic Abscess. *Brompton Hosp. Rep.*, 1949, **18**, 64.

Hawkins, C. F., and others. Refractory Hypochromic Anæmia and Steatorrhœa. Treatment with Intravenous Iron. *Lancet*, 1950, ii, 387.

Hunt, J. N. An Interpretation of Histamine and Insulin Tests in Patients with Peptic Ulceration. *Lancet*, 1950, ii, 397.

Irving, J. T., and another. The Ossification Process in the Long Bones of *Xenopus Lævis*. *South African J. Med. Sci.*, 1950, **15**, 5.

Irving, J. T., and another. The Effect of Thyroid Hormone on the Ossification of the Femur in *Xenopus Lævis* Tadpoles. *South African J. Med. Sci.*, 1950, **15**, 11.

McCallum, R. I. Alveolar Cell Tumour of the Lung. Report of a Case. *Brompton Hosp. Rep.*, 1949, **18**, 140.

Marshall, Geoffrey, and others. Pneumoconiosis due to Graphite Dust. *Brompton Hosp. Rep.*, 1949, **18**, 183.

Matthews, E., and another. The Polymerisation of Acrylic Denture Base Materials. *Brit. Dent. J.*, 1950, **89**, 148.

Rees, R. J. W., and another. Enhancing Effect of Cortisone on Tuberculosis in the Mouse. *Lancet*, 1950, ii, 391.

APPOINTMENT

David Erskine, M.D., D.P.H., has been appointed Consultant Dermatologist and Venereologist to the Seamen's Group of Hospitals.

CHANGES OF ADDRESS

K. F. Anderson, M.B., B.S., Department of Bacteriology, Guy's Hospital, S.E.1, and 18, First Street, Chelsea, London, S.W.3. Tel.: Kensington 2138.

T. B. Brewin, M.B., B.S., Highlands, 41 Heathfield Rd., Keston, Kent. Tel. : Farnborough 2412.

H. S. M. Crabb, L.D.S., R.C.S., University of Bristol Dental School, L. Mandlin St., Bristol.

D. Erskine, M.D., 50 Wimpole St., W.1. Tel. : Welbeck 9153 and Tideway 2348.

F. R. Russell, M.R.C.S., L.R.C.P., D.A., Newlands, Stockton Rd. South, W. Hartlepool, Co. Durham.

K. L. Wilson, M.R.C.S., L.R.C.P., D.L.O., 42A, Downleaze, Stoke Bishop, Bristol. Tel. : Stoke Bishop 83282.

DEATHS

CARRUTHERS—On September 12th, 1950, Norman Stuart Carruthers, F.R.C.S., of 31, Unthank Road, Norwich, Norfolk.

CROWE—On 23rd August, 1950, Arthur Alexander Robert Crowe, L.D.S., R.C.S., of 14, Adelaide Square, Bedford.

GRAHAM-SMITH—On August 30th, 1950, George Stuart Graham-Smith, M.D., M.A., D.P.H., F.R.S., of Forvie, Hills Road, Cherryhinton, Cambs.

JAMES—On 17th August, 1950, Howell Gwyn James, L.D.S., R.C.S., of 112, Plymouth Road, Plymton, S. Devon.

MILTON—On August 29th, 1950, Edward Farminer Milton, M.D., of Passeys House, High Street, Eltham, London, S.E.9.

WALTERS—On September 16th, 1950, William James Walters, B.A., M.R.C.S., L.R.C.P., of 185, Whitehall Road, Gateshead-on-Tyne, Durham.

BIRTHS

DAVIES—On October 8th, 1950, at the Royal Berkshire Hospital, to Greta (*nee* Jacob), wife of D. O. Davies, M.B., B.S., a son (prematurely).

EL SHINNAWI—On October 2nd, 1950, at The Barratt's Home, Northampton, to Norma (*nee* Harding), wife of Dr. M. Mohammed El Shinnawi, a daughter, Alexandra Jane Hanim.

TAYLOR—On October 2nd, 1950, to Elizabeth (*nee* Dobinson), wife of S. Beresford Taylor, L.D.S., a son.

PARKES BOWEN—On September 23rd, 1950, to Sheila (*nee* Robinson), wife of David Parkes Bowen, M.B., B.Chir., a daughter, Penelope Susan.

PHILLIPS—On September 15th, 1950, at Gwyn-Mor Nursing Home, Cardiff, to Pearl (*nee* Tapper), wife of Alan H. Phillips (Lieut., R.A.M.C.), a son, Simon Martin.

PLEASANT—On September 18th, 1950, at R.N. and R.M. Maternity Home, Southsea, to Mary, wife of Surgeon Lieutenant-Commander (D) Guy N. Pleasant, R.N., a son, David Charles.

MARRIAGES

HUME-HYSLOP—On Saturday, September 23rd, 1950, K. M. Hume, M.B., B.S., R.A.F. Hospital, Wroughton, to Rosamund Elizabeth Hyslop, S.R.N., of Kingston Hill, Surrey.

DEATHS

CURTIS—On February 4th, 1950, Percy J. Curtis, M.R.C.S., L.R.C.P., at Kampi-Ya-Moto, Kenya, aged 80 years.

GRAHAM-LITTLE—On October 6th, 1950, Sir Ernest Gordon Graham-Little, M.D., F.R.C.P., of 19, Upper Wimpole Street, London, W.1.

WEBBER—On October 4th, 1950, Henry Woolmington Webber, M.D., M.S., F.R.C.S., of 165, Banbury Road, Oxford.

Eds. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1625 4th November 1950 Ninepence

PASSIM

THE catering arrangements in the College provide a persistent basis for controversy and discontent. On the one hand is the management, striving to improve efficiency to the extent of employing outside consultants, and still faced with a disconcerting and even alarming financial deficit. On the other hand, scarcely a single patron is satisfied.

Fundamentally, a dehiscence of purpose is inevitable. Students and other less regular customers, passing much of their time elsewhere, require only an occasional meal, principally lunch and tea. This side of the business should be run on strictly commercial lines. The Residents, by contrast, have rather different needs and they feel, moreover, that they are owed special obligations. On the facilities available and on them alone they are almost entirely dependent for their subsistence. Contracting out is impossible ; to indulge in meals elsewhere is, under the terms of their appointment, clearly uneconomic. For them, therefore, every meal is specially important. In general, they should be served with food adequate in substance and attractive in variety, not at particular times but throughout the whole twenty-four hours. To face the same fried potatoes and shrivelled tomatoes first thing every morning, or to be regimented into dinner before half-past-seven every night is both thoughtless and unreasonable to a point of insult. The privilege of a hot drink on the wards in the course of a night round may be traditional, but it is wrong. Residents, notably the surgical members among them, should be able to procure hot meals or, at least, hot snacks at any hour of the day or night. In America this is done. Does England lag behind here again?

So far as details are concerned, hot plates *are* an advantage for hot foods. Coffee making admittedly is an art, but reasonable coffee can be prepared, given a little care. Indifferent coffee is quite unpalatable. Clean tables, daintily laid, serve to enhance appetite. Broken-spouted teapots and coffee pots crying out for catheterisation are no aid to the preservation of spotless table-cloths. Cabbage may possess various dietary features, but not when it is stewed to pulp. Salads are not compounded simply by adorning three limp lettuce leaves with two half tomatoes and a few chunks of smoky beetroot. Finally sausages, although by recent edict boasting an increased content of meat, are like so many dogs, languishing under a bad name. They should be avoided for the time being—or camouflaged.

All this is to quibble with minor points. Yet, in catering, they are the very things that count. Patrons, for their part, should realise their responsibilities as well. Deductions at the rate of £100 per annum make heavy inroads into the monthly pay packet of the Resident. But where else, outside the Hospital, could one contrive suitable lodging, laundry and full board at the cost of no more than £2 a week ? What is more, so far as food is concerned, this is no age of abundance. Agreed, we should all like more meat, better meat, extra cheese, more bacon and so on, but they are simply not available. What the customers sometimes fail to appreciate is that even under the very best circumstances meals taken in the same place invariably become monotonous. Indeed, anyone domiciled for a prolonged period in, say, the Ritz or Shepheards, will testify to this unfortunate conclusion. Again, one wonders at times exactly how many people would fare better at home, with every respect to mothers and wives. Only at home, complaint would not be suffered ; its very utterance might scarcely be risked. There is, regrettably, among the Residents an inclination to behave carelessly, to grumble needlessly and to disregard the accepted canons of politeness in the dining-room. In short, improvements can be attained, so long as there is understanding and co-operation on both sides.

The Rhesus Factor

By R. K. ALLDAY.

THE Rhesus factor is a relatively new concept in the field of medicine and, as such, has not yet achieved more than a passing mention in many of the general medical textbooks. This article is an attempt to explain the basic principles of the Rhesus factor, as at present understood, and to indicate its importance in clinical practice. No apology is made for stressing some of the less common aspects of this problem as it is only by appreciating their existence that an understanding can be gained of the Rhesus factor as a whole.

Until recently the Rhesus factor was only known to be of importance in the fields of blood transfusion, Hæmolytic Disease of the Newborn and the study of genetics. Work is now being published, however, suggesting that it may have an ætiological significance in diseases hitherto unsuspected of any association with it. What may come of these investigations remains to be seen.

An excellent survey of the position of the Rhesus factor up to mid-1948 is provided by the M.R.C. Memorandum, No. 19.

What is the Rhesus Factor?

The Rhesus factor is not a single entity, either present in or absent from the blood of any individual, but is a complex factor present in the red blood corpuscles of all human beings. It may be considered here as consisting of six parts and it is only the presence of absence of one of those parts which determines whether a person is Rhesus positive (Rh+) or Rhesus negative (Rh—).

These six parts, using the Fisher—Race nomenclature, are designated C.D.E. c.d.e. and these letters are used to represent both the genes (which are responsible for the antigens) and for the antigens themselves.

These genes are carried three on each of a pair of allelomorphic chromosomes, which means that each person receives three from one parent and three from the other. The three that come from one parent are all different although they may be the same as, or different from, the three received from the other parent.

e.g. Baby X may receive, say, C.D.E. from its father and c.d.e. from its mother.

Or Baby Y may receive c.D.E. from its father and C.D.e. from its mother. Whatever the baby receives it will have two of each letter, but some may be big letters and some small.

e.g. CDE/cde and cDE/CDe in the above cases, or in fact any one of thirty-six possible different combinations.

Now these genes are not dominants and recessives. If both C and c are present in the infant's genetic make-up, then the infant possesses both C and c antigens. Thus if the infant receives the same from each parent (say CDE making it CDE/CDE) then it will have only three antigens in its corpuscles: whereas if it receives three completely different ones from each parent (say CDE and cde, making it CDE/cde) then it will have six antigens in its corpsucles.

The corresponding antibodies do not occur spontaneously in human serum for the Rhesus factor as they do in the ABO system, i.e. the fact that a person does not possess the big C antigen in their corpuscles does not mean that they have the anti-big C antibody in their serum. They do not. Nor do they manufacture antibodies against the antigens which they themselves possess.

From this it may be seen that if a person possess all the genes and thus all the antigens, i.e. CDE/cde, then he will not manufacture any antibodies whatever Rhesus type of blood is put into him. If, however, at the opposite extreme

he only possesses three different antigens, i.e. Cde/Cde, then any blood containing c, D or E, if it is introduced into him, may result in the production of the corresponding antibodies.

The fact that a person *may* manufacture an antibody (or antibodies) if unsuitable blood is introduced does not necessarily mean that he *will* do so. Whether or not he does seems to depend on several things among which the amount of blood introduced, the particular antigen concerned and the " antibody producing power " of the individual, all play a part.

The Meaning of Rhesus Positive and Rhesus Negative.

As mentioned above Rhesus positivity (Rh+) and Rhesus negativity (Rh—) merely indicate the presence or absence of a particular one of the six parts of the Rhesus factor. That part is the big D. An Rh+ person possesses the gene (and thus the antigen) big D whereas an Rh— person does not. The Rh+ person may possess either a single or a double dose of the big D gene, i.e. .D./.d. or .D./.D. but the Rh— person, since he cannot possess the big D at all, must possess two little d's. This is frequently expressed as " the individual is heterozygous Rh+." i.e. the two D's are different, one big and the other little, or " . . . . is homozygous Rh+", .i.e. the two D's are both big D's. An Rh— person must be homozygous for little d since if they possess a big D at all they are Rh+.

This positivity or negativity is concerned solely with the D or d antigens or genes and implies nothing whatsoever about the Cc or Ee antigens.

Thus CDE/cDE, cDE/CDe, cDe/cde and many others are all Rh+ whether the C's and E's are big or little.

Conversely cde/cde, Cde/cdE, CdE/Cde, and again many others, are all Rh—.

From this it can be seen that although a patient is Rh+ and is being transfused with Rh+ blood, yet it is still quite possible—and indeed often occurs—that an antigen which they do not themselves possess is being introduced into their circulation.

An example of this would be if the recipient were of the Rhesus type cDE/cDE and were being transfused with blood of the type CDE/cDE. In this case the big C antigen is being introduced into a circulation which does not naturally possess it : antibodies may be formed and eventually may lead to a transfusion reaction.

The Antigenic Powers of the Different Antigens.

Of the six antigens mentioned above (and these six are not the whole story but are a perfectly satisfactory basis for an understanding of the principles involved) the one that causes far more trouble than all the others put together is the big D antigen. Nevertheless any one of the others (in theory at least, and all but possibly one have done so in practice) can cause equally severe trouble. The danger with these other antigens lies rather in the fact that it is not realised that they can cause trouble, indeed their very existence is often unrealised, rather than in the frequency with which they do cause trouble.

Why it should be that the antigen D is much more effective in causing the production of its corresponding antibody than say little d is not understood. It is, however, a fact . Anti-D is relatively commonly produced but anti-d is —to say the least— excessively rarely produced.

Between these two extremes come the other antibodies and of them anti-C at least, though not produced so readily as anti-D, is yet by no means a rarity. Approximately one third of all bloods in which Rhesus antibodies have been produced contain anti-C, generally in association with anti-D as well.

The Production of the Antibodies.

Since the Rhesus antibodies do not occur spontaneously in human blood, but only as the result of stimulation, the first transfusion of Rhesus incompatible blood, into one who has not previously been sensitized, will not cause a reaction.

It may, however, stimulate the body to produce antibodies. How long the body takes to do this seems to vary from individual to individual but the risk is always present after an incompatible transfusion, and with the potent D antigen is frequently manifest.

There are two other ways in which a person can be sensitized to a Rhesus antigen, the second being applicable only to women.

(i) Intramuscular inoculation of whole blood which is, or used to be, employed as a measure against measles. Such procedure, if the blood is incompatible, can sensitize the patient for life and in any event is unnecessary as the serum will do just as well without the risk of sensitization.

(ii) If a woman has borne a child which has possessed any antigen (i.e. received from the father) not possessed by the mother herself then she may have become sensitized to that antigen. If such a child has shown any manifestations of Rhesus disease then that woman has become sensitized.

Manifestations of Rhesus Incompatibility.

These manifestations occur in the two separate groups of cases in which the Rhesus factor plays a part

(i) In blood transufsions

(ii) In the group of diseases classed under Hæmolytic Disease of the Newborn.

(i) In Rhesus incompatible blood transfusions, when antibodies have previously been formed, the incompatibility is shown by a "transfusion reaction," the clinical manifestations of which are described in general textbooks. It might, however, be mentioned here with advantage that the mildest reaction may be no more than "less benefit to the patient from the transfusion than would be expected." This can be extremely difficult to assess but it is of some importance to recognise it as further transfusion with similar incompatible blood, apart from being of no value in raising the hæmoglobin, will tend to give rise to more and more severe reactions.

If an unexplained transfusion reaction does occur, no matter if Rh+ blood is being given to an Rh+ person or Rh— blood to an Rh— person, the blood should be further investigated. The cause of the trouble may quite possibly be one (or more) of the Rh antigens other than big D.

(ii) Hæmolytic Disease of the Newborn. The clinical manifestations of this disease in the fœtus or infant are described in the various textbooks and will not be discussed here. It is, however, worth while emphasising that any of the manifestations can be due to an antigen other than big D. It is, of course, true that the large majority of cases of this disease are due to big D but it is also true that many have been reported due to other antigens. Thus this disease is not confined to the Rh+ offspring of Rh— mothers.

If an infant shows clinical signs of "Hæmolytic Disease" then whether the mother be Rh+ or Rh— serological investigations should be carried out, firstly to establish the diagnosis and secondly to enable a prognosis to be given for future pregnancies.

Practical Considerations in Transfusion Practice.

The complete Rhesus make-up of an individual is known as the Rhesus genotype of that individual and is written by means of the formulæ described above, e.g. a Rhesus positive individual may have the genotype CDe/CDe or (say) CDe/cDE. (Strictly speaking the term phenotype would be a more accurate general term to use).

Ideally every patient who is transfused should receive blood of exactly the same genotype as his own, i.e. a patient of Rh+ genotype CDe/CDe should be transfused with Rh+ blood of that genotype and not of some such genotype as cDE/CDe. Unfortunately this ideal is not yet generally attainable but it is practicable to ensure that big D is not transfused into a circulation to which it is foreign, i.e. an Rh— one.

As has been mentioned above the first incompatible transfusion into a previously unsensitized individual will not cause a reaction, but it can cause

sensitization—and no amount of cross matching will reveal this possibility. Such a procedure is not in itself dangerous at the time of transfusion. It does, however, increase the risks of any future transfusions that may be necessary. Also, in the case of women, it may have other very (and the word " very " is used advisedly) serious consequences.

The practice of transfusing Rh+ blood without previously ensuring that the recipient is in fact Rh+ is not desirable at any time. In the following cases in particular it is of especial importance to be sure of the Rh group.

(i) All women who have not passed the childbearing age. This includes female children and infants.

" . . . . The chance of a single incompatible transfusion or injection immunizing the patient permanently [is] 50 per cent, and those so immunized [stand] a high chance of losing their first and subsequent babies if, as would be usual, they married an Rh positive man . . . ." (Race, R. R. *B.M.J.*, 1950 ii, 354.).

(ii) All patients who are likely to need a number of transfusions, especially if these will be spread over a long period of time, e.g. aplastic anæmias.

(iii) Any person who has previously been transfused, especially if there is a history in any way suggesting a reaction.

(iv) Any person who has at any time received an inoculation of whole blood.

(v) Any woman who gives a history of having borne a child that has shown any manifestation of Hæmolytic Disease.

(vi) Any woman who has had an abortion or stillbirth whatever the apparent cause.

In the last four groups (iii-vi) above, in addition to the risk of sensitization, there is the risk of an immediate reaction, and in (v) the risk becomes a likelihood should blood of the incorrect group be used.

In all these groups (i-vi) the patient's blood should be examined to determine whether is it Rh+ or Rh—.

In group (v) and in group (iii) if there is a history of a reaction, the patient's serum should be examined for antibodies. In either of these cases, should the patient be Rh+, further investigations are necessary to determine just which antibody or antibodies are causing the trouble.

If the patient is Rh— then Rh— blood of the genotype cde/cde will be used. (This is normally the only type of Rh— blood used from donors as it possesses no " big letter " at all and " small letters " are less likely to cause trouble than the big ones. Also it is likely to be the genotype of the Rh— recipient as this type is easily the commonest Rh— genotype of all.) As it is most unlikely (though not impossible) that the recipient will have any antibodies against the " little letters," only the usual cross matching technique need by employed.

If, however, the patient is Rh+ but has antibodies in his serum then cross matching must be done by methods rather more detailed than those normally employed in the wards.

In Emergencies.

In an emergency, if the patient must have blood and cannot be tided over with serum or gum saline, and if there is no time to do Rh grouping, then the patient should receive Rh— blood in any of the cases (i)-(vi) above.

This is of the greatest importance in (i) and (v) and in (iii) if there is a history of a reaction.

In Obstetrical Practice.

All women should be grouped as Rh+ or Rh— on first attending for ante-natal care. No further investigations are required in the Rh+ group unless there is a history suggestive of their having previously been sensitized to a Rhesus antigen, in which case they should be treated as are the Rh— women.

The Rh— group should be investigated for antibodies at about the third month. Any antibodies found at this time are almost certainly due to previous sensitization as antibodies due to the pregnancy in utero rarely appear before the fifth month.

The Rh— group should further be investigated for antibodies at about the thirty-fourth week, by which time any antibodies due to the present pregnancy will normally have made their appearance.

The significance of a changing antibody titre and the treatment of Rhesus disease will not be dealt with here.

Three Technical Points.

(a) If the Rhesus grouping of a patient is only investigated after a transfusion has been given, then the fact that he has been transfused should be made known to the laboratory invesigating the blood. This is to avoid any reaction given by the cells which have been transfused being mistaken for a reaction due to the patient's own cells.

(b) If it is required to know whether or not a patient has been sensitized soon after a tranfusion the fact that the serum does not contain any antibodies does not mean one thing or the other.

In the first place they may not yet have been produced or in the second place, if they were present prior to the transfusion, the last transfusion may have adsorbed them all out of the serum. In this second instance it may be possible to detect them adsorbed on the surface of the transfused cells ; the laboratory will look for them there provided that they are made aware of the possibility.

(c) Whether or not an infant is affected by Hæmolytic Disease can be determined within a few minutes of birth by means of the Coomb's test on the cord blood. If the disease is not suspected until after death— and Rhesus findings in the blood of a cadaver even recently dead seem of doubt-significance—the parents' blood will still be available and can give much information.

On Genotyping and Kindred Subjects.

The genotyping of a particular blood has to be performed by a specialist laboratory largely because of the comparative rarity of some of the antisera used. Also because of this rarity the routine investigations of genotypes (as opposed to research work) are generally done on a probability basis. The four reasonably common anti-sera anti-C, anti-D, anti-E and anti-c are used.

Now suppose that the blood under investigation reacts with anti-C and anti-D but not with the other two. The information that this produces is that the blood has got in it the antigen C but has not got little c. Thus so far the blood must be C../C.. Further the blood does not react with anti-E, therefore it must possess a double dose of little e as big E is not present at all. It is now possible to say that the blood must be C.e/C.e.

Since the blood reacted with anti-D the D antigen must be present, but it it is impossible to say with certainty whether it is present as a single or double dose, and therefore, whether little d is present or absent.

The two possibilities left are that the blood is either CDe/CDe or CDe/Cde.

Now it is of some importance to know which of these genotypes is in fact correct, the one being a homozygous Rh+ whilst the other is heterozygous Rh+.

If the blood is that of the father of an infant affected with Hæmolytic Disease then, if it is of the homozygous type CDe/CDe, it is practically a certainty that all future children of that man by the same wife will be affected. If, however, the blood is of the heterozygous second type only fifty per cent of the children will be affected.

In the detailed examination of a large number of bloods it was found that CDe/CDe occurred in about seventeen per cent of people (and an even higher percentage of fathers of infants with Hæmolytic Disease) whereas CDe/Cde occurred in less than 1 per cent. The likely choice, therefore, for the blood

under consideration is CDe/CDe but there is still the possibility that it may be the other type. Thus to give an absolute prognosis for future pregnancies in this case cannot be done although the outlook is poor indeed.

Another method which may be useful for determining whether an Rh+ man is homozygous or heterozygous is to examine the blood of his parents and children. If either one of his parents or any one of his children is Rhesus negative then the man must be heterozygous Rh+ since he has either received or passed on a Rhesus negative chromosome. If none is found to be Rhesus negative then it is no indication either way. This is not a method based on probabilities. If crossing over occurs between the Rhesus genes the result will be unaffected and the possibility of mutations can be ignored.

Nomenclature.

The CDE/cde Fisher-Race nomenclature used above is not the only nomenclature in common use. The one associated with the name of Wiener is also widely used especially in American literature. The reason for using the Fisher-Race method is because it lends itself better to a simple explanation of the principles involved.

In the Wiener method each possible combination of genes that can be present on one chromosome is represented by one symbol. The antigens, which are not distinguished from the genes in the Fisher-Race method, have the letter h added to the genetic symbol. The antibodies are also represented in a different way. The arguments for and against the two systems will be ignored.

	Fisher-Race Nomenclature Genes and Antigens		Wiener Nomenclature Genes	Antigens
Rhesus positive	CDe	=	R^1	Rh_1
	cDE	=	R^2	Rh_2
	cDe	=	R^0	Rh_0
	CDE	=	R^z	Rh_z
Rhesus negative	cde	=	r	rh
	Cde	=	r′	rh′
	cdE	=	r″	rh″
	CdE	=	r^y	rh_y

Antibodies occasionally used	Antibodies generally used	Antibodies
Γ	anti-C	anti-rh′
Δ	anti-D	anti-Rh_0
H	anti-E	anti-rh″
δ	anti-c	anti-hr′
δ	anti-d	anti-Hr_0
η	anti-e	anti-hr″

e.g. A person who is Rhesus positive of the genotype CDe/cDE possessing the antigens C, D, E, c and e who had been sensitized to the antigen little d would have anti-d in his serum (Fisher-Race).

A person who is Rhesus positive of the genotype R^1 R^2 possessing the antigens Rh_1 Rh_2 who had been sensitized to the antigen rh would have anti-Hr_0 in his serum.

Postscript.

A summary of this paper would be pointless—it is no more than a summary itself—but a postscript might be utilised to point out that no more than the fringe of the subject has been touched. There are at least a further four Rhesus genes, antigens and antibodies already described, variants of those mentioned above. In addition to the ABO and Rhesus blood antigen-antibody systems there are at least a further six systems already discovered, all of which can, in theory, give rise to any of the manifestations that can be caused by the Rhesus factor. They none of them differ in principle from the Rhesus factor and their significance in clinical practice—at least as yet—is very small indeed.

Hæmolytic Disease of the Newborn

By J. HOLMES, M.B., B.S.

UNTIL recently it was thought that hydrops fœtalis, icterus gravis neonatorum and congenital anæmia of the newborn were three separate diseases and it was not until 1935 that an attempt was made to explain all three under one pathology.

HISTORICAL.

Hydrops fœtalis has been known for many centuries and Hippocrates is said to have given a fairly accurate description of a case. Ballentyne however was the first to make a detailed pathological study of the condition. He noted the absence of syphilis, heart and kidney disease and he observed the enlarged spleen, liver and placenta, the marked anæmia, the yellow ascitic fluid and the occasional hydramnios. He knew it occurred in successive siblings but interpreted the erythroblastosis as a leukæmic infiltration, a mistake which is not difficult to understand. Rautmann in 1912 coined the name erythroblastosis, but believed that the fault lay in the maternal kidney. This, however, was denied by Oberndorfer in 1927 who described a case of twins of which only one was suffering from hydrops fœtalis.

Icterus gravis neonatorum was first recognised by Morgagni who, in 1761, described a fatal case of neonatal jaundice in a member of his own family. Towards the end of the 19th century the familial nature of the disease, and the true diagnostic criteria, enabling differentiation from other causes of neonatal jaundice, became generally recognised. Buchan and Conrie in 1909 claimed a distinctive blood picture and pointed out that there was ten to thirty fold increase of erythropoietic tissue and a marked increase in both blood formation and blood destruction.

Orth in 1875 noticed a staining of the brain tissue in certain cases of neonatal death, and Schmorl in 1904 coined the name kernicterus and described the lesions in the basal ganglia and medulla in 6 out of 120 deaths from icterus gravis neonatorum. Greenfield in 1939 described the clinical manifestations of an extra-pyramidal lesion in children, who soon after birth had been severely jaundiced.

In 1932 Diamond described an interesting family of 8 children. The first 4 children were normal, the 5th, 6th and 7th suffered from a severe anæmia soon after birth but gradually improved and eventually survived. The 8th child was a typical icterus gravis neonatorum with œdema and enlarged spleen and liver. It was given a relatively large transfusion after which the jaundice and œdema disappeared, the liver and spleen became smaller and the child was then left with a severe anæmia similar in all respects to the previous three children. From a study of this and other cases Wilson in 1935 concluded that the three diseases had a common ætiology, but at this time the cause was still unknown.

In 1905 Dienst suggested that toxæmia of pregnancy resulted from a difference in blood groups between the mother and the infant and Dienst was the first to show that iso-immunization could occur where a Group O mother conceived a Group A fœtus. And again in 1923 Otlenburg suggested the similar theory of mutual immunization as a cause of eclampsia and possibly icterus gravis neonatorum.

Diamond, however, could find no Landsteiner Group ABO incompatibility in any case of hæmolytic disease, but thought that the clinical manifestations were due to an increased destruction of immature red cells.

In 1938 Jarrow concluded that all the features of hæmolytic disease could be explained by an antigen-antibody reaction in the child, and she also thought that the hæmoglobin of the mother and fœtus were not only chemically different but immunologically distinct.

Levine and Stetson in 1939 noticed several intragroup transfusion reactions in pregnant women, in whose obstetric history there had been a relatively high incidence of stillbirths, abortions and toxæmias. Two years later they were able to detect anti-Rh agglutinins in a mother's serum to her husband's red blood cells. They correctly concluded that the cause of erythroblastosis was the transplacental iso-immunization of the mother by the fœtal red cells, which contained the Rh antigen derived from the father, the immune antibodies then passing back into the circulation of the fœtus and causing a hæmolytic anæmia.

There were, however, still a large number of cases of hæmolytic disease in which no immune bodies could be found, and this could not be explained until 1944 when Race and Wiener showed that Rh antibodies were normally present in two forms—an agglutinating type which could be detected in saline suspension of R.B.C. and an incomplete antibody which could only be detected when the cells were suspended in 20% albumen or plasma solution.

Landsteiner and Wiener in 1940 were using Rhesus monkey blood for injection into rabbits as a method of preparing anti-M sera. They also found, however, another antibody to human R.B.C. in 39 out of 45 of their random cases and this antibody was shown to give parallel reactions with the antibody found by Levine in mothers of babies suffering from hæmolytic disease. In passing it might be noted that 84% of white people are Rh+, and that hæmolytic disease is stated to be a great rarity in coloured and oriental races.

Levine and others knew that animal (Rhesus monkey) sera gave positive reactions with 84% of human R.B.C., but were soon to discover a serum in a Rh negative mother which reacted with 88% of human R.B.C. They rightly concluded that it contained two forms of Rh agglutinins and working along similar lines of thought other anti-Rh agglutinins were soon discovered.

THEORY OF HAEMOLYTIC DISEASE OF THE NEWBORN.

Rh antisera	ANTIGENS					
	Rh_1	Rh_2	Rh_0	Rh′	Rh″	rh
Antiserum 1 ...	+	—	—	+	—	—
2 ...	+	+	+	—	—	—
3 ...	—	+	—	—	+	—
4 ...	—	+	+	—	+	+

In 1944 Race drew attention to a scheme devised by Fisher who had observed that the reactions given by the antisera 1 and 4, as shown in accompanying table, were mutually antithetical and concluded that they were reacting with allelomorphic antigens. These genes he called C and c. As the reactions of antisera 2 and 3 were not completely antithetical Fisher named the antigens which they distinguished as D and E and predicted that antibodies corresponding to their allelomorphs d and e would occur.

He suggested that the Rh genotype was constituted by a short chromosome strip of closely linked elementary genes, one from each allelomorphic pair Cc Dd Ee, thus giving eight theoretical Rh types by different combinations of the elementary antigens.

Although the antibodies d and e have since been discovered the only readily available antisera are those containing the antibodies C, D, E and e. Therefore the presence of d and e in a genotype has to be guessed on the basis of percentages in the general population and this leads to errors in stating whether the father of an affected infant is homo- or heterozygous. This error may be small or may be as much as 50% in some groupings. For example, if reactions with antisera are :—

Anti C —, „ c +, „ D +, „ E + } Then the father may be cDE/cde and thus heterozygous, or cDE/cDE or cDE/cDe and thus homozygous and thus either guess has a 50% chance of being wrong.

For each genotype, however, this error can be easily calculated but it remains a guess and it is advisable to give a very guarded prognosis for all future pregnancies in cases of hæmolytic disease.

Each of the 6 antigens are capable of stimulating the production of antibodies, although antibodies to D are responsible for 95% of cases of hæmolytic disease and for this reason it is usual to test only for the presence or absence of D antigen in persons who are pregnant or who are about to receive a blood transfusion.

All cells (except sex cells) carry a double set of Rh chromosomes and statistical evidence suggests that the three Rh genes in each chromosome are very closely linked. Because of this close linkage the genes are unlikely to become separated and consequently the phenomenon of crossing over of genes

occurs very infrequently. When crossing over does occur it is the outside genes of each chromosome which take part, and because of the absence of genotype CdE Fisher believes that the position of the genes on the chromosome are such that C lies between D and E.

So much then for the theories underlying hæmolytic disease of the newborn. Let us now consider it as a practical problem in obstetrics.

Practical Applications.

If a hundred women are taken at random from the population, 17% will be Rh negative (dd). Of these 17 women, 14 (83%) will marry Rh positive men of which 8 will be heterozygous and 6 will be homozygous (observed incidence). With each pregnancy the 14 Rh negative women will conceive 10 Rh positive fœtuses. Therefore it is possible for hæmolytic disease to occur in 10% of pregnancies, although in fact the incidence is approximately 0.5% of all pregnancies. The explanation for this discrepancy is that it often requires several incompatible pregnancies, especially if the father is heterozygous, before the mother produces antibodies and even if the latter are present the fœtal R.B.C. may not be sensitised. Only 4% of cases of hæmolytic disease occur in primigravida and the incidence of the disease has been observed thus :

1 in 1000 Rh negative women having 1st infant.
1 in 42 „ „ „ „ 2nd infant.
1 in 12 „ „ „ „ 5th infant.

Following an Rh incompatible mating Rh antibodies (or anti-D) can only be detected in 5% of mothers whereas after an Rh incompatible transfusion antibodies can be detected in 50% of recipients. This emphasises the great importance of giving the correct Rh grouped blood to pre-menopausal women or girls. The same precautions should be taken whether the blood is given by intravenous or intramuscular injection.

Hæmolytic disease can be caused by other rarer Rh antigens, by the Lansteiner ABO groups and by Kell's blood group which was first described by Race and occurs in 7% of the population. By using R_1 R_2 (CDe/cDE) cells, however, antibodies to all Rh genes except d (a very rare antibody) can be detected irrespective of whether the patient is Rh positive or negative. Therefore, if a mother has an affected infant even though she is Rh positive it is not difficult to test for the presence of antibodies in her serum.

Unfortunately no fœtal prognosis can be made during pregnancy, because although it is possible to measure the titre and the duration of maternal antibodies it is impossible to measure the filtering capacity of the placenta and the degree of sensitization of the fœtal red blood cells. After the birth of the infant the Coomb's test can be employed to detect the presence of incomplete antibody on the surface of the fœtal R.B.C. The blood for this test, however, must be taken at birth or from a live infant and the test must be performed within 2 hours of diluting the red cells with saline.

So far no method has been discovered of depressing the formation of antibodies, although attempts have been made, with questionable success, by giving repeated intramuscular injections of ethylene disulphonate to the mother throughout pregnancy.

We can reduce the incidence of hæmolytic disease of the newborn by carefully Rh grouping and cross-matching blood before transfusion, but so far no treatment can change the course of the disease in the pregnant woman before childbirth. We are therefore left with the treatment of the affected infant. Once the infant is born two facts must be ascertained before treatment is commenced : firstly whether it is affected with hæmolytic disease, and secondly whether the degree of affection calls for immediate transfusion.

Clinical Features.

The chief clinical features of hydrops fœtalis are general œdema, serous effusions, enlargement of liver and spleen, and grossly enlarged and œdematous placenta and gold-coloured liquor. Most cases are stillborn and those that survive birth die within 36 hours, with or without treatment. Congenital anæmia of the newborn may not be clinically obvious but by comparison with normal infants there is usually pallor and slight jaundice.

Icterus gravis neonatorum is manifested by a jaundice which usually comes on rapidly within a few hours of birth. There may be an enlarged spleen and liver, slight œdema, petechial hæmorrhages and enlarged placenta. When there is reason to suspect that the infant may be affected, a little umbilical cord blood should be taken into an oxalate bottle and a Coomb's test performed as soon as possible. In addition, the hæmoglobin level and bilirubin content should be determined.

If the Coomb's test is positive the infant is suffering from the disease and we are then faced with the most difficult decision of whether to transfuse or not. Reliance can seldom be placed on any one of the many criteria and the general condition of the infant must be carefully assessed before embarking upon treatment.

Factors which tend to favour transfusion include : (1) history of a poor clinical course and eventual outcome of the mother's previous affected infants ; (2) the rapid and early onset of definite jaundice within a few hours of birth ; (3) cord blood with a hæmoglobin level of less than 14.5 G% (below 12 G% is an absolute indication) ; (4) a large number of erythroblasts in the infant's peripheral circulation ; (5) pallor, cyanosis and œdema.

Factors which tend to favour conservative treatment include : (1) No previous history of hæmolytic disease. (2) Very slightly raised icteric index only. (3) No cyanosis or anæmia. (4) Very weak Coomb's test which however is an unreliable guide to the severity of the disease. (5) A strong vigorous crying infant.

The following are a few of the advantages of exchange transfusion :

(1) It provides a stable population of erythrocytes not susceptible to rapid destruction.
(2) It removes most of the Rh positive R.B.C. from the circulation and thus saves the infant's organs from being overloaded with breakdown products.
(3) It enables a far more extensive replacement Rh negative R.B.C. to be effected in a short time.
(4) It removes a certain amount of free Rh antibody.

Although it will be very difficult to prove that exchange transfusion lowers the mortality rate in hæmolytic disease there can be no doubt that it offers the most satisfactory method available for treating severe cases of the disease, where this is considered desirable.

Other suggested forms of treatment, which have been tried but not now universally practised, include : (1) Induction of labour at 37 weeks ; so far the additional hazards of prematurity have outweighed the advantages of early separation from the mother. (2) Splenectomy to reduce the blood destruction. (3) Oxygen and high glucose diet. (4) Massage of the liver to disperse the plugs of accreted bile. (5) Transfusion of concentrated albumen to diminish the œdema and combat the peripheral failure especially of infants undergoing exchange transfusion. (6) Stopping breast feeding ; experimental evidence suggests that no significant amounts of Rh antibodies can be absorbed unchanged from the infant's stomach.

A question which immediately comes to the mind of those who are obliged to treat the disease, is what are the sequelæ of hæmolytic disease of the newborn and what influence, if any, heroic treatment has upon the eventual prognosis.

The most common sequel to the acute disease is a greenish discolouration of the teeth of the first dentition and this occurs in about 5—10% of cases.

Kernicterus, which is characterised by an extra-pyramidal involvement of the C.N.S. and mental backwardness, is the most serious result which occurs in about 6% of cases. The incidence of this complication is increased by prematurity, by late treatment of the disease, and by the survival of severe cases as a direct result of giving an exsanguination transfusion.

An incipient cirrhosis of the liver of the biliary pattern is occasionally seen in infants dying after the first month of life.

There is *no* support for the belief that Rh incompatibility as such—without neonatal jaundice—results in children suffering from Wilson's disease (liver cirrhosis, lenticular degeneration of the brain), feeble mindedness, mental deficiency or schizophrenia.

It is now thought that abortions occurring before the 20th week of pregnancy are not due to the Rh factor.

Hæmolytic disease of the newborn is reponsible for 5—10% of all stillbirths and neonatal deaths.

Statistical Analysis.

The Oxford group of cases give the following pattern of the disease in infants showing a positive Coomb's test.

First affected infants :

	Up to 1942	1942—47	
Recovered spontaneously ...	13.0%	14.5%	Figures based on 78 affected children
Transfused and recovered ...	4.3%	25.0%	
Transfused and died	4.3%	5.5%	
Died	11.0%	18.5%	
Stillbirths	30.0%	16.0%	

All affected infants :

Recovered spontaneously ...	11.0%	11.0%	Figures based on 116 affected children
Transfused and recovered ...	2.8%	40.0%	
Transfused and died	2.8%	15.0%	
Died	33.0%	14.0%	
Stillbirths	50.0%	20.0%	

Methods of Treatment.

Many infants can be adequately treated with simple transfusions with blood of a compatible Lansteiner group and if possible of the Rhesus genotype cde/cde. It is sometimes possible to give such transfusions by injection into a scalp vein although the extreme fragility of the latter frequently necessitates cutting down and inserting a Bateman's needle. Transfusions should be given slowly and not more than 10—15 m. of blood per pound of body weight given at any one time.

Exchange transfusion is usually carried out through a polyethylene catheter inserted into the umbilical vein. 20 ml. of blood are withdrawn and 21—22 ml. of transfusion blood injected and after 25 such exchanges approximately 90% of the infant's erythrocytes will have been substituted. The technique, although simple in theory, is tedious in practice and requires three to four hours of patient drill.

This is but a brief and dogmatic outline of the fundamentals underlying the theory and treatment of hæmolytic disease of the newborn, but it is hoped that it will lend interest and clarity to the overwhelming mass of literature which now surrounds this interesting and clinically important subject.

Conclusions.

It seems clear therefore that by transfusion approximately three times as many affected babies will survive, but this will be associated with a greater number of children affected with kernicterus. Since the incidence of this serious complication is at the moment unknown it would seem justifiable in making every effort to save the life of the infant, especially if the father is homozygous, as each subsequent pregnancy will probably produce an infant more severely affected. Where, however, the father is heterozygous and the mother therefore capable of giving birth to an unaffected infant the wisdom of heroic treatment, especially if the disease is severe, is a highly debatable matter.

ACADEMIC

November		Exhibition. Surgical Department. "The Surgery of the Sympathetic Nervous System."
10th	1.00.	Dr. Douthwaite. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.
11th	10.00.	Mr. O. V. Lloyd-Davies, St. Mark's Hospital. Surgical Departmental Round. Clinical Theatre.
14th	1.00.	Dr. Evans. Clinical Lecture. "Persistent Vomiting in Infancy."
16th	4.30.	X-Ray Meeting. Gordon Museum.
17th	1.00.	Dr. Grant. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.

SPORT AND OTHER ENGAGEMENTS

7th	5.15.	Dental Society. Mr. J. Dixon. "A Visit to Scandinavia."
8th		Rugby 1st XV. *v.* Cambridge University. (Cambridge.)
11th		Rugby 1st XV. *v.* Birkenhead Park. (H.O.P.)
		Rugby "A" XV. *v.* Wadham College. (Oxford.)
13th		Rugby 1st XV. *v.* Edinburgh Academicals. (H.O.P.)
15th		Rowing. United Hospitals Regatta. (Putney.)
18th		Rugby 1st XV. *v.* Rosslyn Park. (Old Deer Park.)
		Rugby "A" XV. *v.* Rosslyn Park "A". (H.O.P.)

Richard Bright—A Bio-Bibliography

By WILLIAM HILL, A.L.A.

(Continued).

GUY'S HOSPITAL

ON his return to London he filled the vacancy as House-Pupil to Pearson and after completing the course of study returned to the Public Dispensary where he was appointed Assistant Physician. On 28th December, 1816, he was admitted Licenciate of the Royal College of Physicians and this was followed by an appointment as Assistant Physician to the London Fever Hospital. Bateman was still Physician and Bright was his only assistant. The amount of work here, together with his other duties as well as frequent attendances at Guy's was probably too much for him and he contracted a severe attack of fever during an epidemic and was lucky to escape with his life. The fever was probably Typhus which began in London in the autumn of 1816 and continued until 1819, although Small-Pox was also prevalent during 1817-8. During this time he was preparing the account of his travels in Hungary and this was published in 1818. Probably in order to recuperate after his illness he decided to visit the Continent again and in the autumn of 1818 he set out for Germany. After several months in Germany he went south through the Tyrol into Italy where he stayed for a time before returning through Switzerland and France to England. At the time he proposed to write another book describing these travels but the project never materialised.

He returned to London in 1820 and shortly afterwards became Assistant Physician to Guy's Hospital. He also took a house in Bloomsbury Square (number 14) and commenced private practice. His election to the Royal Society dates from this time.

In 1822 he commenced his lectures on Botany in its relation to Materia Medica and these he continued until 1825. In 1822 also he married Martha, youngest daughter of William Babington, by whom he had one son who died young after having taken Holy Orders. In 1823 he commenced his Clinical Lectures and in the following year he was elected Full Physician and joined Dr. Chomeley in the course of Theory and Practice of Medicine. After three sessions Chomeley resigned and Bright continued to lecture on his own until he was joined by Addison.

The Lectures on the Theory and Practice of Medicine were held on Mondays, Wednesdays and Fridays at 3.30 and the fees were :—

First course	£4	4	0
Second course	£3	3	0
Third and to be perpetual	£2	2	0
Two courses paid at once	£6	6	0
To be perpetual	£3	3	0
Three courses paid at once	£7	7	0
To be perpetual	£2	2	0
Perpetual at one payment	£8	8	0

Clinical lectures were given in the Clinical Wards for six months of the year and the fees as Physician's Pupils were :—

Eighteen months	£15	15	0
A longer period	£24	4	0

Bright continued to give these lectures after his retirement.

As far as is known Bright was not a brilliant lecturer. In a letter to the *Lancet* of October 25th, 1825, an anonymous correspondent signing himself ΔΕΩ speaks thus :

" In the Practice of Medicine, Disorders of the Intellect will be reflected by Dr. Bright of whom it is not too much to say with the poet, ' Natura lo fece, è poi ruppe la stampa '. " Nature shaped him and then broke the mould."

Another writer in the *Medical Times* for 13th June, 1840, speaks of the Bright-Addison lectures :—

" Dr. Bright is a very heavy conceited person, and Dr. Addison a blustering bundle of loquacity. . . . He will lecture for an hour on the causes of a catarrh."

These statements are difficult to reconcile with Pettegrew's account of him as a lecturer :—

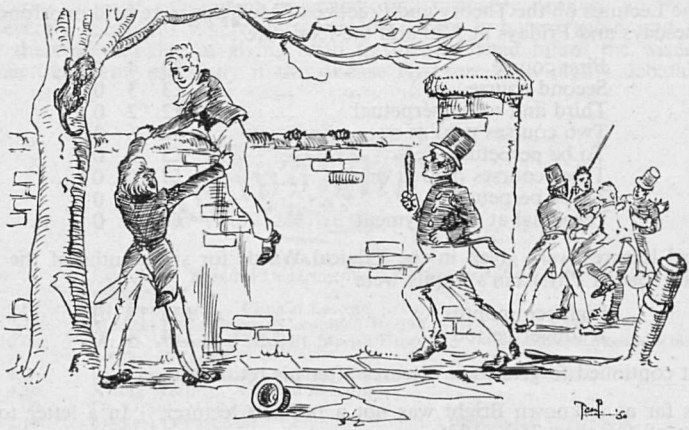
" Dr. Bright's class of pupils at Guy's Hospital is extensive and so far back as 1832 he was urgently solicited by his pupils to print an address delivered by him at the commencement of a course of medicine."

He speaks of him as a worthy lecturer and " his fitness to teach is amply shown by the deep sense of responsibility with which he is affected and fortunate indeed are those pupils who fall under the guidance and tuition of so experienced a master."

Others who knew him speak of his simplicity and his fine and attractive nature, all difficult statements to fit the " heavy conceited person " mentioned above.

Earlier we have described the Hospital and its life. It is now time to consider the changes which took place about this time. In 1824 differences arose between St. Thomas's and Guy's. Sir Astley Cooper retired from active practice and as was the custom nominated his successor as lecturer. His nomination was to be a joint one with his nephew, Bransby Cooper, and Aston Key to share the duties. He also left the contents of his museum to both hospitals. This museum had been built at St. Thomas's and had been filled with specimens taken from both hospitals. St. Thomas's however appointed John South to the vacancy. At this both Key and Cooper gave lectures openly at Guy's, whereas in the past they had done so in secret, and in addition asked that half the museum should be handed over to Guy's. The bickering continued for some while until Benjamin Harrison decided to form a medical school at Guy's.

An area of land was purchased on the south side of Collingwood Street and new buildings erected. These comprised a new anatomical theatre, a museum and a dissecting room and were situated opposite to what is now the south wing of Hunt's House and in front of Nuffield House. The row of small houses in Sutton Street were used for lectures on comparative anatomy and as studios for Canton the artist and Towne the modelist. This work was completed on June 21st, 1825.



The schools were still connected in so far as they allowed students from one to attend the practice of the other but this precarious state of affairs ended in 1836. In December of that year the Guy's students were refused admission to the operations at St. Thomas's unless they were in possession of a ticket. In addition they were refused the privilege of nominating two of the dressers to

be present in the operating area as had previously been the case. A general row ensued and the police were called. Nine Guy's students were arrested but were later bound over to keep the peace. From this time the two schools continued their separate ways.

In 1826 Bright remarried, his first wife having died early in 1824. His second wife was Eliza Follett, the daughter of Mr. Benjamin Follett of Topsham, near Exeter. The ceremony took place at Topsham on July 27th, 1826. From this marriage there were six children, four sons and two daughters. Two of the sons died young, one became master of University College, Oxford, and the other practised medicine in Cannes.

During the first years of his appointment as Physician, Bright wrote little, but in 1827 he published the first volume of the Reports of Medical Cases which, despite a few doubters, made his reputation both here and on the Continent. This was followed by the second volume a few years later which upheld the high standard of the first.

In 1832 he was made a Fellow of the Royal College of Physicians under an old rule which enabled the President, with the College's consent, to nominate a Fellow from one of the Licenciates. In the following year he was appointed Gulstonian Lecturer and he chose for his subject " The functions of the abdominal viscera, with observations on the diagnostic marks of the diseases to which the viscera are subject. This was later published in the *London Medical Gazette*.

In 1836 the first volume of the Guy's Hospital Reports appeared and Bright contributed several papers to it including a summary of his work of kidney disease. Until his death he continued to contribute several papers to each volume.

In 1837 he was appointed Lumlian Lecturer and his subject was " Disorders of the Brain." Unfortunately no trace of this address can be found. In the same year he was appointed Physician Extraordinary to the Queen and he was Censor to the Royal College of Physicians both in 1836 and 1839. In 1839 he read a paper to the Physical Society on "The clavicated nail and finger which is generally supposed to be indicative of strumous disease." This exists only as a precis in the manuscript minutes of the Society for 5th October, 1839.

In 1842 he persuaded the authorities to set aside two wards containing 42 beds to be used for the study of kidney disease. This was apparently the first attempt to apply the resources of a hospital to the study of one disease. Bright describes the experiment :—

" The Clinical Wards of Guy's Hospital seemed to afford a most appropriate opportunity for the object in view ; and I applied to the Treasurer of Guy's for permission to occupy them after the Clinical session had concluded in May. Mr. Harrison entered heartily into the plan, and offered every facility. Accordingly it was determined that, from May to October I should be allowed the full use of the Male and Female Clinical Wards ; and all my colleagues readily granted permission to select any cases from the other wards which might consider likely to promote the object.

" Dr. Barlow with the greatest readiness, undertook to make up for my neglects ; whilst Dr. Rees took charge of the chemical part of the inquiries ; and it is entirely to these two that our Reports are indebted for the connected account of proceedings which the present communication contains.

" Our establishment then consisted of a female ward with eighteen beds ; a male ward with twenty-four beds ; a room between the two wards for the meeting of the Physicians and Pupils, and for the registry of the cases ; and a small laboratory communicating with the middle room, fitted up and decorated entirely to our purpose.

" Dr. Barlow and myself were in charge of the medical treatment of the cases, with the assistance of Dr. J. T. Francis, Mr. J. H. Browne and Mr. Allen Williams, as Clinical Clerks, whose duty it was to take daily reports.

" Dr. Rees had charge of the laboratory, in which he was assisted by Mr. Pearce ; and thus prepared we began our operations, and proceeded pretty steadily with them.

" The objects which we proposed to ourselves were, to examine, as far as possible, the changes which accompany the secretion of albuminous urine in the various functions and secretions of the body ; whilst at the same time we registered the various circumstances connected with the origin, progress and treatment of the disease—a disease than which there is certainly none which offers a more extended field for careful and well-directed observation."

The Clinical Wards were Job and Lydia and a plan of them was included in the Guy's Hospital Reports for 1844 from which the above quotation was taken. They were discussed fully by the late Sir Herbert Eason in the same journal for 1927 where the plan is reproduced.

Mention has been made of Drs. Barlow and Rees. These two men collaborated with Bright during his investigations and continued the work after his death. George Owen Rees (1813—1889) had a distinguished career being Lettsomian Lecturer, Harveian Orator, Croonian Lecturer and F.R.S. He came to Guy's at the age of sixteen and after a period of study in Paris and Glasgow returned as Physician. His interest lay in Biochemistry and he published many papers on the chemical analysis of body fluids. He was associated with Alfred Taylor in many important criminal investigations including the case of Palmer in 1856. His work attracted the attention of Bright who asked him to make analyses of urine for him and so began a long and happy collaboration. A fastidious, cultured man of whom it was said :—

" We have never heard of Rees behaving in any but the most courteous manner to all his professional brethren."

He retired in 1873 and died in 1889.

George Hilaro Barlow (1806—1866) was a quiet unassuming man, a careful and precise physician who was held in great respect by those who knew him. He never achieved the fame of his colleagues, Addison, Gull and Bright and this was most probably due to his modest, retiring manner. He was the first editor of the Guy's Hospital Reports to which he contributed some sound and well-written papers. His lectures were attended by those who were above the average among the students and who preferred the discusson of the more abstruse subjects rather than the dogmatic style of Addison. He was associated with Bright in his work on the kidney and after Bright's death edited the series of papers on abdominal tumours for publication in the New Sydenham Society's series.

Associated also with Bright was John Bostock (1773—1846), the son of a doctor. After qualification at Edinburgh he became involved in a pamphlet war with the Royal College of Physicians. In 1817 he came to London and gave up medicine in favour of chemistry and physiology. He was appointed lecturer in chemistry at Guy's and collaborated with Bright. He was an active member of the Medico-Chirurgical Society and read many papers before it, including one on his own hay-fever. He also wrote a " Sketch of the History of Medicine from its origins to the commencement of the 19th Century " which he dedicated to Bright. He died of cholera in 1846.

In 1842 a letter in the *London Medical Gazette* announced that Bright was working with Dr. George Robinson on the anatomy and pathology of the kidney and that a book was to be published shortly. This was to contain the results of their labours which included a thousand sections taken from a hundred cases of kidney disease. This book was never published although Robinson published a book on the pathology of the kidney in the same year. How much of the work, which is dedicated to him, was Bright's is not known.

In 1843 Bright gave up his position at the hospital mainly as a result of ill health following an attack of jaundice, although he continued his clinical lectures. From this time onward until his death he devoted himself to private practice which until this time had been small. He also gave much time to his other interests particularly to his painting, and he made long holidays on the continent. His private practice grew until it is said was the largest in London. In 1853 he was given the degree of D.C.L. by Oxford University and the Academie des Sciences awarded him with the Monthyon prize.

(to be continued)

The Pupils' Physical Society

The history of the Physical Society of Guy's Hospital has been adequately described by Sir William Hale-White (1919) in his inaugural address at a special meeting of the Society, and by Dr. J. M. H. Campbell (1925, reprinted 1936). The present rules of the Pupils' Physical Society may be seen in the Guy's Hospital Clubs' Union Handbook.

The Physical Society.

The Physical Society was founded in 1771, only forty-six years after the Hospital was opened, and it is from this descent that the Pupils' Physical Society claims to be one of the oldest Medical Societies with an unbroken life.

The Laws of the Physical Society are preserved in the Wills Library and the following preamble illustrates the purposes for which the Society was formed.

"*Certain gentlemen, desirous of improvement in medicine and other Sciences nearly allied to it, and convinced of the numerous and great advantages, arising from a free communication of observations and opinions, have determined for that purpose to enter into an association, which they chose to distinguish by the name of the Physical Society. And perceiving, how much the attainment of the advantages which they expect from this Institution, may be facilitated by proper Rules, they have agreed to submit the following.*"

Here follow several short chapters of rules covering procedure, details of fines for non-attendance or failure to present papers and such misdemeanours.

The object of the fines was to provide money to buy books for the Physical Society Library and when the Society ceased the whole collection became part of the Library of the Medical School, now known as the Wills Library. Many of the books are valuable classics of the seventeenth and eighteenth centuries.

The members of the Physical Society were mostly officers of the United Hospitals of St. Thomas's and Guy's, together with general practitioners in the neighbourhood, although many celebrated men were elected to the Society. It was the most flourishing institution of its kind in London but popularity waned on the formation of other societies, and in 1852 it ceased to exist.

The Physical Society during its existence held between two to three thousand meetings and perhaps the most famous was that held in 1802 at which Jenner gave an account of the discovery of vaccination.

The Pupils' Physical Society.

The Physical Society had become so celebrated and had demonstrated so completely the great advantages to be derived from meetings and discussions that in 1830 the pupils, the students of that time, founded the Pupils' Physical Society, which is the Society now functioning. Only students of Guy's Hospital could be members, and the staff could be honorary members. The subjects for discussion were strictly medical and surgical, the fee of membership was 2s. 6d. and the time of meeting was from 8 p.m. to 9.30 p.m. on alternate Saturday evenings.

When the Physical Society ceased to exist in 1852 the Pupils' Physical Society was an established institution and was able to continue the great traditions of its parent.

The first President of the Society was Mr. E. Cock. Among the first members and honorary members were Addison, Babington, Bell, Bright, Astley Cooper, Bransby Cooper, Curry, Monson Hills, Hilton, Hodgkin, Hughes, Key, John Morgan, Rees and Stocker. Probably never did a Society begin with such a distinguished membership.

The Society was run very much on the same lines of the older Physical Society. The first Minute Book still survives and the rules state that only students could be members, but that the Medical and Surgical officers of the Institution could be Honorary Members. There were six Presidents, as well as the Honorary President and Secretary. These numbers have now been increased and it is found that for the session 1938—39 the elected officers consisted of an Honorary President, four Honorary Vice-Presidents, twelve Presidents and two Honorary Secretaries.

Each new session commenced with an Opening Address, and for many years tea was served in the College or the Wills Library and a display of intruments and new books arranged.

Association with St. Thomas's.

One cannot discuss the history of the Physical Society or the formation of the Pupils' Physical Society without mentioning St. Thomas's Hospital. Gough (1949) describes the origin of the Medical and Physical Society of St. Thomas's Hospital. It appears that the pupils of both hospitals attended the practice of the other until 1825 when, as the result of differences between the authorities of the two hospitals, a new Medical School was established at Guy's Hospital by the Treasurer, but the pupils of one school seeing the practice of the other remained.

The final slender bond of union that bound the two medical schools was broken in 1836 when police were called to St Thomas's to quell a disturbance between students of the rival Borough Hospitals. It was then that St. Thomas's formed their own Society on the lines of the Pupils' Physical Society of Guy's Hospital.

Meetings.

The Society aims at presenting a series of meetings at which Medicine is studied in its widest aspect in an atmosphere where it can be enjoyed to the full. They are traditionally of a nature that enables the most junior student to indulge in a free expression of opinion.

These meetings are either clinical, when cases are presented, or the reading of a paper, both being followed by a discussion, and joint meetings with the Medical and Physical Society of St. Thomas's.

In the past, meetings have been held regularly throughout the winter months and each has been presided over by a Chairman who, except for the Secretary, was often the only qualified man present. This point is stressed because students are apt to think that the Pupils' Physical Society is designed for the benefit of qualified men and members of the staff. In fact, meetings are primarily intended to give students an opportunity of discussing medical and surgical problems amongst themselves.

Although meetings lapsed for some time after the outbreak of war in 1939 they were resumed at Guy's, Pembury and Farnborough with marked success, but of course with a limited attendance.

All members of Guy's Hospital Clubs' Union are ordinary members and all patrons and honorary members of the Union are Honorary Members of the Society.

References

Campbell, J. M. H. (1925). *Guy's Hosp. Gaz.*, Bicent No. p. 107.
—— (1936). *Guy's Hosp. Gaz.*, **50**, 525.
Gough, M. H. (1949). *St. Thomas's Hosp. Gaz.*, **47**, 241.
Hale-White, Sir William (1919). *Guy's Hosp. Gaz.*, **33**, 379, 396.

Book Review

The Stammerer's Choice. By H. St. John Rumsey. *Methuen.* Price 7s. 6d.

The title of this book is misleading, though, doubtless, it serves its purpose. The part which deals with stammering re-affirms the author's earlier views. It is true, as he states, that the approach to the problem has veered from that which he so vehemently champions. The predisposing, precipitating, and maintaining factors which underlie stammering are far more complex than this book suggests. Nor would other workers claim such finality for any one line of treatment.

As a general survey of speech therapy the book is inadequate. Its references to speech disorders in childhood show a lack of appreciation of the nature of many of these cases.

While giving a good deal of information about facilities for Speech Therapy within the National Health Scheme, the author is critical of the services provided.

L. W.

Sport

RUGBY

Guy's *v.* Aberavon.

14th October, 1950.

At Aberavon. Result—Lost 12-29.

Guy's received a great welcome at Aberavon and from the kick-off attacked strongly. The first ten minutes saw the ball heeled cleanly and moving smoothly along the three-quarter line; only constant use of the touchline by the Aberavon backs preventing a score. From a scrum infringement W. Howells kicked a penalty goal.

Some sparkling handling was then seen from the Aberavon backs and Aberavon forged ahead and at half-time were leading by five converted goals, 20 pts. to 3 pts.

From the start of the second half the Hospital seemed a completely rejuvenated side and fighting back strongly replied with 2 tries by B. Dodson and K. P. Walker, and a good penalty goal by W. G. Davies. Aberavon went further ahead with a try, a penalty goal and a dropped goal.

The game had been a grand exhibition of open football, and suffice it to say that all the Aberavon spectators and team stood and cheered as the Hospital side left the field.

Team: W. Howells; K. P. Walker, E. James, G. Baker, B. Dodson; W. R. Thomas, R. Knight; H. Riddalls, D. Clark, J. Hobbs, C. Pook, C. T. M. Wilson, P. Rademan, W. G. Davies, G. Bellis.

Guy's *v.* Bedford.

21st October, 1950.

At Bedford. Result—Lost 0—29 points

It was extremely unfortunate that the Hospital in the midst of team building should meet one of the strongest sides in the country. Apart from this there can be no excuses for a heavy defeat suffered through the inability of a three-quarter line to receive and pass a ball properly.

The majority of the Bedford scores were due to handling mistakes by the Hospital backs which were quickly pounced upon by the fast following Bedford centres.

Although playing against a much heavier Bedford pack, the Hospital eight more than held their own with Pook, Wilson and Bert being prominent, and once they have settled down and played together for a few more games will be a strong force to contend with.

Team: W. Howells; B. Dodson, E. James, G. Baker, W. Birch; W. R. Thomas, R. Knight; D. Clark, C. T. M. Wilson, J. Hobbs C. Pook, J. Bert, W. W. Lord. W. G. Davies, G. Bellis.

Guy's *v.* Plymouth Albion.

28th October, 1950.

At H.O.P. Result—Won 20—9.

This game was notable in that the Hospital broke their run of defeats which it has suffered since the beginning of the season. The team settled down well in this game and gave an exhibition of good open rugby.

Balfour-Lynne playing in his second game for the 1st XV soon settled down to play a good attacking game at outside half and made an excellent try through a fine cut through and at the end of the game himself scored another.

In the first half tries were scored by T. Smith, D. Keen, and W. G. Davies, one of which was converted by W. G. Davies, and in the second half the Hospital went further ahead through tries by Keen and Balfour-Lynne and a penalty goal by Davies.

James played an excellent game on the wing and is potentially very dangerous when given a few yards in which to beat his man, while in the forwards, Bert was splendid in the line outs and the back row trio prominent in the loose.

Team: W. T. Howells; E. James, D. Keen, T. Smith, W. Birch; L. Balfour-Lynn, R. Knight; C. T. M. Wilson, D. Clark, J. Hobbs, C. Pook, J. Bert, W. Lord, W. G. Davies, G. Bellis.

HOCKEY

With the Hockey season well under way, Guy's are fielding three regular teams and a fourth team that has frequent games. The first team is virtually unchanged. The junior teams are substantially reinforced by new students to whom we extend a warm welcome and our wishes for a happy season.

1st Team results:

14.10.50.	Guy's *v.* Nat. Phys. Lab.	Won 2—1.
21.10.50.	Guy's *v.* Romford	Won 4—1.
28.10.50.	Guy's *v.* Barclay's Bank	Won 7—0.

Past *v.* Present

It is hoped to hold the Past *v.* Present game on Wednesday, 7th February, 1951, or Saturday, 24th February, 1951.

Ex-Guy's hockey players are requested to write to :—

W. Vans Agnew or E. A. Murray, Guy's Hospital, S.E.1.,

signifying (*a*) which day will be most suitable to them; (*b*) if they wish to play and giving their positions.

The game will be followed by the Hockey Club Dinner (Subscription 10*s*.).

All members attending are assured of a hearty welcome, a good game and a convivial dinner.

NURSES' SWIMMING

Inter-Hospital Nurses' Swimming Club

Result of Gala held at Marshall Street Swimming Baths on 12th October, 1950 :

Pre-Eminence Shield (held by Guy's Nurses' Swimming Club in 1949), won by London Hospital. 2nd. St. Mary's 3rd. Guy's.

CHRISTMAS CARDS

A limited supply of Christmas Cards are on sale in *The Gazette Office*, 6, St. Thomas' St., S.E.1. Prices: 6/-, 4/- and 2/6 per dozen, including envelopes (per post 6d. extra). Early purchase is advised to avoid disappointment.

Hospital Information, etc.

NOTICES

Guy's men (Medical and Dental) who require help in obtaining locums, assistantships, etc., in general practice or hospital appointments, should apply to J. H. E. Winston, Appointments Officer, Medical School, Guy's Hospital, S.E.1. (*Tel.* Hop 3500, Extension 383).

STUDENTS' HEALTH SERVICE

MASS MINIATURE X-RAY

The Ministry of Health mass miniature radiographic unit will be at Guy's on the 13th November, 1950, and subsequent days for the routine examination of students in the Medical and Dental Schools.

Before this date, notices will be posted in the Medical School, Dental School, Colonnade and College giving the times of appointments. Owing to the large numbers of students concerned, it is regretted that the times of individual appointments cannot be changed and it is hoped that all students will make every endeavour to attend promptly at the time asked so that examination may proceed rapidly and efficiently.

Should a student find that his name does not appear on the lists, he should communicate at once with the Secretary to the Students' Health Service (Telephone : HOP 3500, Ext. 389).

GAZETTE COPIES

To complete an important Library File, we should be grateful if any old Guy's man could forward us the following numbers of *The Gazette.*

1934. Nos. 1206 and 1211.
1935. No. 1212.
1936. No. 1263.

GUY'S HOSPITAL CHRISTIAN UNION

The Christian Union extends a warm invitation to all members of the Hospital community to attend meetings in connection with the London Inter-Faculty Christian Union Mission to London University, November 5th—19th.

The Resident Missioner in the Hospital will be R. T. S. Goodchild, Esq., M.B., B.S., F.R.C.S.

The main meetings at Guy's, to be held in the Physiology Theatre, are as follows :—

Tuesday, 7th November, 4.30 p.m. Film, "Voice of the Deep." Chairman : R. J. Cann, F.R.C.S.

Tuesday, 14th November, 4.30 p.m. Talk' "Christianity and Medicine," by A. Rendle Short, Esq., B.Sc., M.D., B.S., F.R.C.S., Professor of Anatomy, Bristol University. Chairman : J. B. Blaikley, Esq., F.R.C.S., F.R.C.O.G.

Thursday, 16th November, 12.30 p.m. Film, "Dust or Destiny." Chairman : To be announced.

A. T. TARRANT,
Secretary.

P. L. PICKETT,
Chairman, Guy's Hospital Christian Union.

DENTAL SOCIETY

The opening meeting of the 1950-51 session was held in the Dental Theatre on 10th October, 1950. The new President, Mr. W. A. Bulleid, was inducted to the Chair, and he then delivered an address entitled "Some Reflections," being an account of those things in general which have influenced him during his career at Guy's.

The officers and committee of the Dental Society for 1950-51, are as follows :—

President :	Mr. W. A. Bulleid.
Vice-Presidents :	Mr. R. O. Holland.
	Mr. K. Pringle.
	Mr. R. D. Gain.
Hon. Secretary :	D. J. Neill.
Hon. Treasurer :	H. R. Harvey-Moffatt.
Hon. Assistant Secretary :	G. E. Wade.
4th Year Representative :	J. G. G. Dixon.
3rd Year Representative :	W. D. P. Flynn.
2nd Year Representatives :	H. C. F. Meyer.
(Laboratory)	R. Pearson.
B.D.S.A. Representatives :	A. G. Orme.
	J. M. Cantley.

For the benefit of freshmen it may be mentioned that dental students are automatically members of the Society. Meetings are held in the Dental Theatre at 5.15 p.m. on the second and fourth Tuesdays in the month when papers are read by students on subjects of a wide dental interest. Tea is provided by the Society in the Spit prior to meetings.

CHANGES OF ADDRESS

I. S. Eve, M.R.C.P., 68 Santon Way, Seascale, Cumberland.

H. A. Ripman, F.R.C.S., 10 Park Square Mews, Upper Harley Street, N.W.1. Tel. : Welbeck 9339.

E. A. Wright, M.B., M.R.C.P., 765 Washington Street, Brookline, Boston, Massachusetts, U.S.A.

BIRTHS

BAILEY—On October 29th, 1950, at Thornton House Nursing Home, Redhill, to Marguerite (née Josephs), wife of F/Lt. W. J. Bailey, a son—Nigel John.

BEATON—On October 13th, 1950, at Guy's Hospital, to Barbara, wife of S. Beaton, B.D.S., a son, Andrew Guy—a brother for Lesley.

DOWN—On October 15th, 1950, at Queen Charlotte's Hospital, to Nora, wife of George R. Down, L.D.S., a daughter, Angela Mary, sister for Charles.

FIGGIS—On October 9th, 1950, to Jean, wife of Morton M. Figgis, M.R.C.S., L.R.C.P., a daughter, Geraldine.

HANCOCK—On September 18th, 1950, at the R.A.F. Hospital, Cosford, to Brenda (née Evans), wife of Alan K. Hancock, M.R.C.S., L.R.C.P., a son, Peter Dean.

MORGAN—On October 18th, 1950, to Verity (née Eminson) wife of John K. Morgan, M.B., M.R.C.P., a daughter, Rhona, Elizabeth.

RUSSELL-STONEHAM—On October 17th, 1950, at Windsor, to Pauline, wife of Dr. F. J. Russell-Stoneham, a sister for Angela (Heather).

EDS. {R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1626 18th November 1950 Ninepence

PASSIM

The lure of a new book is something of which we are all aware. Its glossy flycover, its new cut edges, its smell, all make us proud of our purchase long before we open the title page. However thick it may be we are convinced we shall read it through. Countless previous failures never occur to us or daunt us, and if it be a text book, then its contents are, we feel, practically in our heads as we leave the shop. A few days later, no longer carrying our book, a few days more, the book upon a shelf and still half read, we are ready to be lured again into a book store, incurable in our perfidy.

It has often struck us as peculiar that whilst doctors and medical students may, with the greatest ease, be persuaded to purchase some new and untried "Text-book of This "or" Shorter Practice of That," they will with only the greatest difficulty be persuaded to read the great medical classics. These, rich in fact as well as history, they scorn. Carlyle had more use for the works of Dryasdust. Yet, though their popularity may rise and fall, the merit of these classical works remains. One such may be found reviewed elsewhere in this issue and we should suppose that of all the writings of Guy's men of any age few are more worth reading than John Hilton's " Rest and Pain." It is not only these works which deserve attention. The original descriptions of disease, are also well worth reading and in reading them one may well acquire more than the facts set forth by Addison or Bright or Buerger or Paget. From the writings of such masters of the profession emerges an attitude to disease, individual, keenly observant, critical, painstaking ; an attitude of which, with all the paraphernalia of modern teaching and modern techniques, we stand most in need and which we sometimes seem most likely to lose.

One great problem which besets the Editors of the *Gazette* is that of producing a journal interesting to the student and to the Guy's men afar off. One feature which is of interest to the latter is, so we are told, the correspondence column and this may well form a link between Guy's men in many different places. May we therefore tell all those not now at Guy's that their letters are always especially welcome both to us and to their contemporaries, and help us to prevent our hospital journal becoming too parochial.

About the Park

During the summer several of the ground floor rooms in the Old Hostel had to be vacated for redecoration. There was some considerable dismay amongst the Old Hosteliers when it was subsequently learned that these re-decorated rooms were to be occupied by qualified men. However, the assurance that the measure is a temporary one, has been accepted and peace reigns once again.

The new Radiotherapy Department is complete and is in operation. It is beautifully laid out and the challenge to all department planners at Guy's—that of fitting a new Department into an area of peculiar size, shape and location —has been successfully met.

John Hilton

By H. J. B. Atkins, D.M., M.Ch., F.R.C.S.

By kind permission of messrs. G. Bell & Sons, Ltd., from the Introduction to the sixth edition of "Rest and Pain," published in October, 1950.

DESPITE contradictory accounts, the parish register establishes that John Hilton was born on September 22nd, 1805, in the village of Sible Hedingham, near Halstead in Essex. His parents, John and Hannah Hilton, were people of moderate means, and Hilton was educated at King Edward VI School at Chelmsford, now the Chelmsford Grammar School. It has always been alleged that the Hilton family were in somewhat straitened financial circumstances because John was unable to purchase an apprenticeship —until that time the only recognised avenue to success in the surgical world. There is, however, a record that in 1806, the year after John's birth, John Hilton the elder purchased a "parcel" of land abutting on Swan Street for £160 from John and Samuel Cooke, whose family "by divers mesne assignments, wills and other acts in the Law" had held the freehold since 1748. Four years later he acquired adjoining property amounting to "3 acres, 2 rods and 0 perches" from John Bedlow for £380, both properties being part of an estate granted for 1,000 years to the Rt. Honble. Edward de Vere, Earl of Oxenford, Viscount Bulbeck, Lord of Badlesmere and Scales, and Lord Great Chamberlain of England, by Queen Elizabeth in 1596, and thereafter split up into small holdings for farming at an annual rental of approximately a shilling an acre. Many of the tenants, like the Cooke and Bedlow families, eventually acquired the freehold.

On this property John Hilton the elder built a substantial two-storey brick house, which is occupied to-day and is known as "Hilton House." John Hilton the elder was engaged in the straw-plaiting industry, and later controlled some brickfields, so that he must have been comfortably off; but no doubt the demands of a family—John, Charles, Mary, Emma, Anne and Georgiana—were considerable, and it may be that he considered that his eldest son John was quite capable of standing on his own feet, an assessment which the future proved to be correct.

In his will dated 1835, the year of his death, John Hilton the elder left Lea Hurst Farm in the parish of Toppesfield, and two cottages at Southey Green to his son John. The rest of the property in Swan Street went to his wife, during her widowhood, and such of her daughters as were unmarried at the time of his death for their joint use and enjoyment. Should Hannah Hilton remarry, however, the property was to be sold and the value divided equally between his wife and his six children. On the death of Hannah, Charles, the second son, chose to occupy the property, as he was entitled to do under the will, buying out the other legatees for the sum of £150 each; and here he lived until his death in 1864. That Charles Hilton was in financial difficulties there is no doubt, because in 1862 he mortgaged the Swan Street Property for £2,000, to one P. G. Nunn of Great Maplesford, and at his death two years later none of the principle had been repaid, and there was £50 owing on the interest.

The daughter, Anne, married Charles Fagg (Fagge), a general practitioner who later practiced at Hythe in Kent. Their son, Charles Hilton Fagge (1830—1883) became a physician on the staff at Guy's Hospital where he achieved great distinction, and his nephew, C. H. Fagge (1873—1939) in turn was elected to the surgical staff at Guy's and served on the Court of Examiners of the Royal College of Surgeons, later becoming Vice-President of the Council.

C. H. Fagge's son (of the fourth generation) Dr. C. Hilton Fagge, now practices at Braintree within a few miles of the house in Swan Street from where his great-aunt stepped forth as a young bride to set up house in far-distant Kent. So the wheel has come full circle!

Very little is known of John's boyhood or indeed of his student days, but some time after leaving school it is recorded that he visited Boulogne for a short period before coming as a student to Guy's Hospital in 1824, at the age of 19. There are no records of his progress during this period, and very little light can be shed on his interests or on the type of life which he led.

The atmosphere in which the " Borough Student " of those days lived and worked is well depicted in Dickens' account of the medical student, Bob Sawyer ; and circumstances must have been such as to try the toughest nature, a trial which the gentle spirit of Keats was unable to survive. Hilton, however, was made of sterner stuff. Later portraits show us a stocky, rugged figure well fitted to endure the physical strains of his calling. We know that in his personal relations he displayed an independence of spirit which was the antithesis of the sensitive nature of the poet, and earned for him the somewhat apprehensive admiration of the students attached to his firm. If we attribute to Hilton a grain of insensitiveness in his dealings with people, a characteristic which his somewhat sarcastic humour betrayed, that is not to say that he had not essentially a kindly nature. He seems to have possessed that somewhat inscrutable kindliness of the strong and vigorous, a quality sensed instinctively by children, but appreciated only by such of his colleagues as were admitted through the barrier of his reserve and were numbered amongst his friends. Hilton's toughness of fibre is attested by the well-known story of him at a dinner of the United Hospitals Club. At this dinner members drawn from the staffs of Guy's and St. Thomas's Hospitals sat in order of seniority with the Chairman at the head of the table. During the course of the dinner, as John Hilton relates, many of those present would slip under the table, and as their chairs became vacant those in lower places would move up. Hilton was proud to recall that although when the evening started he was in the bottom place, he ended up on the right-hand side of the Chairman, who was a Guy's surgeon, Benjamin Travers. That night, on returning to his rooms in the Borough he wished, in the early hours of the morning, as he states " to cool the tip of his tongue," and getting out of bed was surprised to find that the floor was covered with water. On striking a light he found that his room mate, who had attended the same dinner, was busy in the corner of the room pouring water from a carafe on to an inverted tumbler, in a vain endeavour to get something to drink.

Hilton, who had not perhaps the advantages of a cultural home background or a softening environment, remained all his life a child of this boisterous age. The fact that in 1828, after four years as a student, he was appointed Demonstrator in Anatomy at the age of 23, argues that his interests at that time must have been largely in the dissecting room.

Guy's Hospital had shortly before founded a Medical School independent of St. Thomas's, at that time situated on the opposite side of the street, and Cock had been appointed the first Demonstrator of Anatomy in 1825, Hilton being the second to hold this office. His interest in anatomy and the meticulous care with which he performed his dissections earned for him the sobriquet of " Anatomical John."

It was a happy coincidence that during the time that this painstaking anatomist was working in the Department, there arrived at Guy's another man whose work matched so happily that of Hilton. Joseph Towne, the son of a dissenting minister in Royston, came to London at the age of 17, bringing with him a model in wax of the human skeleton which he had made as a boy in his home.

It is said that at the time when Towne made this model, which he fashioned secretly and at night, he had never seen the whole of a human skeleton and he had to piece it together from stray human bones which he acquired, and from study of somewhat inadequate textbooks then available to him. This model, now in the Gordon Museum, attests the qualities of the young modeller, its accuracy satisfying the most critical eye.

The coach bringing Towne from Royston deposited him at Hackney, and seeing a doctor's plate on a door he called at the house and showed the owner the model skeleton which he had brought. The doctor immediately recognised the perfection of the work, and recommended him to call upon Astley Cooper, who was at that time a surgeon at Guy's Hospital. Astley Cooper at once appreciated Towne's genius, and with no other credentials recommended to the Treasurer of Guy's, Benjamin Harrison, that Towne should be appointed modeller to the Hospital. This appointment took place in 1826, and in this way Joseph Towne started his 53 years' association with the Anatomy Department at Guy's, during which time he made many thousands of wax models, both of anatomical dissections and pathological specimens. The only stipula-

tion which he made was that he should be given a room to which he could keep the key, and behind these locked doors, and by a process known only to himself, this unique collection of wax models was made.

Towne died in 1879, and took his secret with him. To-day these models are miracles of precision, and their colour and consistency have been perfectly preserved in the intervening years.

In 1828, at the time of his appointment as Demonstrator in Anatomy, Hilton began the series of dissections which Towne was to perpetuate in wax, and it is said that for one or two hours every day Hilton would work in the dissecting room preparing, with meticulous attention to detail, perhaps as little as an inch or two of tissue with all the minute structures carefully and delicately displayed. When the whole dissection was complete this would then be handed over to Towne who would reproduce it. In this way, and living in rooms in the Maze Pond adjacent to the Hospital, Hilton worked until 1838 when the dissections which he performed were completed.

The student of to-day, armed with dissecting manuals and comprehensively illustrated text-books on anatomy, cannot fully appreciate the value of these dissections. In Hilton's time, however, their clarity and refinement must have made easy the path of the anatomy student, who learnt his anatomy in three dimensions from such dissections and from their wax models. May be he acquired a surer familiarity with true anatomical relations than his counterpart to-day, who is tempted to shut his mind to visual concepts, and cram it with memorised lists from the printed page.

At the same time Hilton's interest in physiology developed, and it must be remembered that at this period anatomy and physiology were taught concurrently, so that Hilton's approach to the subject of anatomy was always influenced profoundly by teleological considerations. It was not enough to investigate the minute anatomy of parts, but his interest was such that his enquiring mind ranged over the purpose of their disposition, and in this way he came to examine the nerve-supply to joints, to the muscles activating those joints, and to the skin lying over them. He realised that there must be some purposive relation in the fact that all these structures were supplied by branches of the same nerve, and he came to appreciate that where the joint was inflamed the nerves were stimulated and gave not only referred pain to the skin over the

John Hilton. 1805 to 1878.

Model executed by Joseph Towne from one of John Hilton's dissections.

joint, but caused the muscles controlling the joint to go into a spasm, thereby protecting the joint from further injury because of the immobilisation that the spasmodic muscles occasioned. So fundamental was the importance of this observation that it is known now as " Hilton's Law," and because of this work, and in recognition of his original observations on the anatomy of the laryngeal nerves he was, in 1839, at the age of 34, made a Fellow of the Royal Society.

Besides anatomy he was also interested in pathology, performing many post-mortem examinations, and thus developing his interest in the problems of hydrocephalus, spina bifida, head injuries and tuberculous caries. He was deputed to perform the post-mortem examination on Sir Astley Cooper in 1841. It is interesting to recall that Astley Cooper was anxious that this post-mortem examination should be directed towards the elucidation of four points : how far the integrity of his inguinal canal had been maintained following the cure of an oblique inguinal hernia many years before ; the condition of an umbilical hernia similarly cured ; if he had suffered from phthisis in his youth ; and lastly why it was that he had never been able to sleep whilst lying on his left side.

After the completion of the models it is probable that Hilton had time on his hands. He had friends amongst the Fellows of Dulwich College, and he spent many days during the next few years wandering in the Dulwich woods, shooting rabbits and dining with the Fellows, relaxations which were soon to become impossible for him from pressure of work.

Despite this period of relative slackness, he nevertheless was engaged in surgery and had an opportunity of thinking out many of the problems which his anatomical work had suggested to him. In 1843 he was elected one of the Charter Fellows of the Royal College of Surgeons, and in 1844 was made an Assistant Surgeon to Guy's Hospital. At this time the full surgeons on the staff were John Morgan, Aston Key and Bransby Cooper, nephew of Sir Astley ; while the other assistant surgeons were Thomas Calloway and Edward Cock. In 1845 he was elected to the post of Lecturer in Anatomy, an office which he held until 1853, and for many years he gave lectures in Anatomy at two o'clock each afternoon. These lectures had, as might have been expected, a strong teleological bias and showed that Hilton must have devoted much of his time to pondering upon anatomical problems. It will reveal the channels in which his mind worked if we examine some of the concepts which he taught. It can be appreciated how stimulating these lectures must have been, and how they must have made the study of anatomy a fascinating and vital subject. For instance, the subclavian artery he termed " the artery of respiration," and this is how he described it :—

" I opened up this subject many years ago, when endeavouring to explain to the students of Guy's Hospital the purpose of the division of the subclavian artery into its numerous branches. I pointed out that the branches distributed from the subclavian trunk, apart from its continuation to the upper extremity, are distributed with one simple purpose, viz. to supply all the parts concerned directly and indirectly in the process of respiration—that is the simple object of the distribution of the subclavian artery. Thus the vertebral, besides supplying other parts, is distributed to that portion of the spinal marrow from which the phrenic, spinal accessory, and posterior thoracic—all important nerves of respiration—take origin.

" The internal mammary supplies the sternum, cartilages of the ribs, origin of the pectoralis major, phrenic nerve, diaphragm, and upper half of the respiratory portion of the abdominal muscles.

" The superior intercostal artery goes to the first and second ribs. Now the first is the most important of all the ribs in the respiratory function, as it forms the fixed point for the action of the intercostal muscles in elevating the chest.

" Of the branches of the thyroid axis, the inferior thyroid builds up the trachea, a tube essentially connected with respiration, and sends a branch upwards (ascending cervical) which supplies and nourishes the phrenic nerve, and constitutes, in fact, an ascending comes nervi phrenici. The transverse cervical supplies the trapezius and the posterior border of the scapula, with the

muscles attached to it, all of which may be considered accessory to respiration. The supra-scapular supplies the clavicle and scapula, both of which are rendered respiratory by the attachment they give to accessory respiratory muscles."

Similarly he termed the internal maxillary artery " the artery of mastication," and described in great detail how its branches supplied all the various structures concerned in the process of mastication.

Such was the interest aroused by these lectures and so clear was the exposition that, when Hilton got to the subject of the brain, his colleague, Dr. Addison, would come into the theatre and listen to the discourse, sitting in a chair placed for him inside the door by which the lecturer entered.

To-day students find it difficult to muster a great deal of interest in the study of the bones of the skull, and particularly of their development; but listen to Hilton discoursing on the development of the vormer :—

" The vomer is a flat plate of bone which occupies a median vertical position in the nasal cavity, and which through the influence of the sphenoid, is mainly conducive in determining the final configuration of the nose and mouth. By its inferior border it articulates with the upper surface of the hard palate, while its superior border is adapted for the reception of the rostrum and the azygos process projecting from under the surface of the body of the sphenoid, which thus fitting into the vomer, forms an exceedingly secure and efficient articulation between these bones. From this anatomical relation we can perceive how the development of the body of the sphenoid, expanding into the sphenoidal cells and spreading out in all directions, is capable of exerting an influence through the medium of the rostrum which ploughs the vomer onwards in a downward and forward direction and so alters the relative position of the neighbouring parts, in anticipation of those higher functional attainments acquired with adult age. The inferior border of the vomer being firmly affixed to the hard palate, its advance necessarily has a tendency to push the superior maxillary bones in a direction downwards and forwards, so as to increase the capacity of the mouth from before to behind, thereby giving room for the development of the molar teeth, and at the same time to deepen the cavities of the nasal fossæ, in this way affording space not only for the complete development of the turbinated bones and the extension of the olfactory surface, but also for the more ready ingress and egress of air through the nasal organ. By its connection, anteriorly, with the central lamella of the ethmoid, its advance also pushes forward this plate of bone, which in its turn elevates the nasal bones, and likewise leads to the formation of the frontal sinuses."

Thus did the lecturer piece the dry facts of anatomy into a coherent story.

In 1849 Aston Key died suddenly of cholera, and Hilton was promoted to full surgeon. There can be little doubt that Key was a testy, impetuous and difficult colleague, and it may well have been that he inclined to keep Hilton down and obstruct the young surgeon in many ways, so that the latter could have had little reason to be devoted to him. Nevertheless, it is illustrative of Hilton's great sense of justice that at the first meeting of the School and Staff Committee after Key's death the following scene took place :—

" Mr. Dobree, the treasurer (1848—1855) who, like many others had quarrelled with that most eminent but somewhat dictatorial and arrogant surgeon, simply mentioned his death and his successor, and passed on to other matters. Hilton got up and spoke of the credit which Key had been to the Hospital and School, and then warming *more suo* at what he considered an injustice, went on to say ' If no more notice than this is to be taken of Mr. Key, all I can say is that it's a d——d shame.' "

At the time of his promotion to the full staff we may picture Hilton in the prime of life, broad and stocky, brusque in manner, and looking more like a successful business man than a surgeon. He was the very antithesis of his predecessor, Sir Astley Cooper. There was nothing of the aristocrat about Hilton's appearance, nor had he that ready charm which carried Sir Astley Cooper to the highest circles of surgical practice and of the court. Hilton would dress in heavily braided broadcloth, with flowered waistcoat festooned with a gold chain, and a wide-open collar. He drove himself hard and insisted

on hard work from those who served him. He disliked circumlocution and the use of polysyllabic pseudo-scientific terms. On one occasion he admonished one of his dressers thus : " 'The vomited matter was not stercoraceous,' by this expression the dresser, I presume, meant that the vomit had not the smell of dung." As a clinical teacher he was somewhat didactic and spiced his discourse with a sarcastic wit not always appreciated by the unhappy object. He insisted that his dressers should attend to every small detail in their dressings of patients, and that they themselves should write full notes of the cases. In this respect it may be said that he disliked eponymous surgery, and a dresser who once had the temerity to refer to Pott's fracture never dared to mention the name again, such was the avalanche of abuse which he called down upon his head. Again, when a dresser was discussing a case of fracture about the wrist-joint he says :—

" Pistol-shaped splints were applied to both radii—why so? Because undoubtedly the dresser thought he had two instances of Colles' fracture to deal with. He had learned to treat a Colles' fracture with a pistol-shaped splint, and so that form of apparatus was used in this case. Now what is a Colles' fracture? What's in a name? You must never depend for your diagnosis on the personal name given to any lesion, but first ascertain the facts of the case, and then reason out for yourselves all its conditions and requirements. Sometimes, whilst going round the wards, I am told, here is a case of Potts' fracture (*sic*). I occasionally ask the dresser to what pot he is alluding? and whether the chamber-pot is broken? for a beginner in the wards is very apt to be satisfied with the name alone of an injury."

On one occasion while walking up the stairs to his wards followed by his firm, a dresser thoughtlessly started to whistle. Hilton stopped the procession on the landing and, with biting sarcasm, invited the firm to wait for the musician, who was then put at the head of the procession, with the remark " The band, gentlemen, always goes in front."

As an operator Hilton was careful and attentive to detail, just as he had been in his dissections in the Anatomy Department. He was not a natural technician, and he never played to the gallery. His approach to surgical problems was one of caution and he was slow to resort to the knife. This thoughtful cast of mind is reflected in Hilton's method of opening an abscess. It is typical of him that the performance of such a simple process should command his attention and inspire him to devise a method so sound as to remain the standard surgical procedure for a hundred years. Although Hilton did not know of bacteria, and the opening of the abscess was to his mind a method of giving the inflamed walls rest, nevertheless the technique whereby the skin is incised and the rest of the operation done by stretching the tissues with a blunt instrument is the method adopted to-day.

When surgery was deemed to be necessary he could be as bold as any, and it must be remembered that, in his early days, he operated in an era when anæsthetics were unknown, and throughout his life, before Lister's work had revealed to the surgical world the significance of bacteria. He was one of the earliest surgeons to practice lumbar colostomy, and in 1846, while still an assistant surgeon, he performed what he believed to be the first recorded case in this country of the surgical relief of internal strangulation. In 1848 he performed an operation for strangulated obturator hernia. Though both these latter two patients died it can be no reflection upon his skill or upon his judgement ; they are both operations which if performed to-day, with perfect anæsthesia and full aseptic ritual, would be hazardous in the extreme.

Sometime after his election to the staff we find Hilton living in No. 10 New Broad Street, in the City, though it has not been possible to discover when this move was made.

In 1852 he published his well-known work on the cranium which was written particularly to illustrate the constant thesis of his anatomical teaching " Nature's universal precision in adapting means to ends." In this work, for instance, he pointed out how the frontal sinuses were the natural protection of the brain in adults, and how the supercilliary ridges together with the eyebrows diverted the sweat of the brow from the sunken eyes.

In 1860 Hilton was made professor of Anatomy and Surgery to the Royal College of Surgeons, a post which after 1868 was known as Arris and Gale Lecturer, and it was in the course of his duties in this position and between the years 1860 and 1862 that he gave the eighteen lectures which are published under the title " Rest and Pain." These years may be said to be the crowning years of Hilton's achievement. He was firmly established as one of the leading surgeons of his day, with his surgical philosophy developed and eagerly absorbed by the surgical world. It is by these lectures that his name is remembered and will always be revered as one of the greatest surgical teachers and thinkers of his time.

For many years the fruit of his mature wisdom was available to Guy's students, and the reports of his clinical lectures during the winters of 1864–1865 and 1866–1867 show how stimulating his personality must have been in the Hospital where he worked. In 1865 he was elected to the Court of Examiners of the Royal College of Surgeons, and was Vice-President of the Council in this and the following year, being President in 1867 and holding this office for one year as was then customary.

During this year he was Hunterian Orator, and delivered a lecture on " Sympathy," or as we should now term it, " Referred Pain," drawing attention to the pain in the knee-joint accompanying hip-joint disease referred from the geniculate branch of the obturator nerve.

In 1871, after twenty-two years on the staff of the Hospital, he resigned his full duties and became a consulting surgeon. In this year also, he was made President of the Pathological Society, and Surgeon Extraordinary to Queen Victoria.

At about this time Hilton retired to Hedingham House on Clapham Common (now No. 53 " South Side " and alas ! turned into a garage), where he lived until his death on September 14th, 1878. Like some retired warrior he would be visited by his old friends and colleagues, and in his last years although suffering from very great distress due to a carcinoma of the stomach, those who knew him best, such as Jacobson, remarked that to the very end " he kept his sagacity, pungency and honesty, but lost his sharpness, austerity and bitterness."

" He married twice, and his children survived him." These words from the biography of Hilton in Plarr's " Lives of the Fellows " are the sum total of what has been written about the family life of John Hilton. What more can we deduce? An examination of Hilton's will shows that he left £500 in trust to his wife Elizabeth, which would pass " to my wife's son, Fielding Clarke " on Eliazbeth's decease. From this we gather that, if he married twice, his second wife was a widow and brought him a stepson whom he was pleased to remember in his will. After leaving his books to Guy's Hospital, the residue of his estate (which was proven at " under £40,000 ") including the furniture and effects at Hedingham House, together with the furniture from New Broad Street (where he had kept on a consulting-room until his death), went to his wife during her lifetime, and then to his " son or sons " and " daughter or daughters " provided certain conditions were fulfilled. Nowhere in the will are his children mentioned by name, nor are they amongst his executors, who were Arthur Edward Durham, a surgeon at Guy's Hospital, John Frederick Holcombe Read, Curtis Leman and Elizabeth Mary Anne Hilton.

The fact that his medical library went to Guy's suggests that his " son or sons " never entered or, if we may continue in the legal vein, intended to enter the medical profession. What then can we say? Hilton cannot have been much of a " family man " despite his two marriages. A man who had written so much without mentioning his wife or his family, without ever having referred to the incidents of home life in illustration of some point in a lecture, cannot have had them much on his mind. We never hear or read of an endearing expression coming from him. Can it be that the sturdy individual who, as a young man, watched his seniors one by one slip under the table until he was sitting next to Benjamin Travers, can it be that he was himself perhaps not an altogether endearing character? It is significant that the obituary notice, with the customary biographical sketch, in the Guy's Hospital Reports only appeared

fourteen years after his death with an apologetic note by his firm disciple Jacobson that it was high time that this ommision was remedied. In this account there is not even formal mention of a wife or children, though Jacobson must have been a familiar visitor in the Hilton household. However, speculation may lead us to false conclusions, and we cannot do better than to sum up John Hilton's family life in the words of Plarr : " He married twice and his children survived him."

No note on Hilton is complete without some reference to his young friend and editor, Jacobson. That Hilton, the self-taught, should have inspired the admiration and devotion of such as Jacobson, his junior by forty-two years, is evidence of the uncommon power of his mind and the forcefulness of his teaching. Jacobson came from quite a different invironment : son of a fellow of Exeter College, Oxford, and later Bishop of Chester, he was born in the shadow of New College. He was a nephew of Sir William Hooker the botanist, and of Sir Francis Palgrave the historian, and he had as his godfather the Regius Professor of Medicine, Sir Henry Acland. Jacobson was educated at Winchester and later at Corpus Christi College, where he " took a first " in Natural science in 1869, entering as a student to Guy's in the same year. His subsequent career was one of exceptional brilliance : the editor of the most famous text-book of Operative Surgery of his day, and a member of the Court of Examiners of the Royal College of Surgeons, Jacobson was a " character " of whom innumerable stories are told.

What was it in Hilton's writings that exercised such an extraordinary influence over this meticulous classicist, and prompted him not only to edit four editions of the master's work, but to link his name indissolubly with Hilton's by compiling compendious notes to the early editions of " Rest and Pain," amounting in bulk to a considerable proportion of the whole work? Both were thoughtful rather than particularly dexterous surgeons, so that perhaps their approach to surgical problems was mutually sympathetic ; Jacobson felt no doubt that " Rest and Pain " was the finest surgical flower cultivated from the soil of the Hospital which they both loved so well ; and there can be no doubt that it was through the indefatigable energy of the younger man that the inspiration of Hilton's teaching was kept alive and can be handed down to us to this day.

What was the influence of Hilton on the surgical thought of his day and why must we revere his name as a surgical thinker and philosopher? Much of what he wrote and taught will not bear examination in the light of knowledge which we have to-day ; he made no startling new discovery and so we cannot find a place for him on the pinnacle of surgical fame with Hunter, Billroth, Lister or Halsted. Nevertheless, his philosophy is in direct line of descent from that of Ambroise Paré : " Je le pansay, Dieu le guarit." Hilton taught first that nature was inscrutably wise, that her dispositions were purposive and of beneficent intent ; later that she was the supreme healer, and that interference by man must be directed only to giving nature the best opportunity for fulfilling her divine purpose.

However much we may question the probity of such a philosophy, it led Hilton to practice a gentle art, a delicacy of approach to the problems of healing at variance with his own brusque manner and of infinite value to generations to come. When to-day we see a surgeon, in Moynihan's phrase, " caressing tissues," we can but feel that such an attitude derives from the teaching of Hilton, with his insistence upon " Rest," and his understanding of the significance of " Pain."

REFERENCES.

The Parish Register, Sible Hedingham, 1805.
Title Deeds to Land on which " Hilton House " was built, dating from 1596.
John Hilton's Will, 1878.
Brit. J. Surg. (1919—1920), **7**, 435.
Fagge, C. H. (1936), *Lancet*, **230**, 409.
Jacobson, W. H. A. (1892), *Guy's Hosp. Rep.*, **49**, xxxvii.
Plarr, V. G. (1930), Lives of the Fellows, London.
Wilks, S., and Bettany, G. D., (1892) History of Guy's Hospital, London.

Some Reflections

By W. A. BULLEID

Being the Presidential Address delivered at the opening meeting of the Dental Society on 10th October, 1950.

LADIES AND GENTLEMEN,

I cannot say how honoured I feel to-day at being elected your President for the second time in my career. I believe it was way back in 1922 that I was first elected and then I expect most of you present were not born. Certainly there were no ladies in the society then.

I am afraid that a good many of you will look on me as rather an old man but I assure you that I don't feel either senile or decrepit in spite of my years. I hope to show you during my year of office that I am still fairly young in spirit.

As the choice of President is the sole prerogative of the students of this Society the greatest honour you can confer on a member of the dental staff is to elect him President and when this happens twice in a lifetime, then indeed is the honour a great one. I shall always be grateful that in the closing years of my time at Guy's I was so honoured.

The loyalty of old Guy's men for their Hospital is proverbial and I am always astounded at the numbers of men who turn up each year to the annual clinical meeting and attend the annual dental dinner. They come from all parts of the country and this is a great tribute to the love of their Hospital.

I had intended giving you an address on some subject of bacteriological interest but after I had mapped out the paper I scrapped it and decided instead to give you a talk on those things in general which have influenced me during my career at Guy's. Perhaps I felt a little sentimental at the time but whatever the reason I decided to give you a friendly chat, perhaps even some advice, and I hope you won't be disappointed. You may consider it merely a recitation of platitudes ! !

I know that to give advice is often dangerous and to give good advice is often fatal, so I must be careful in what I say.

Things have changed a great deal since I first came to Guy's about forty years ago. In my early days the dental department was small but even then the enthusiasm of the dental students for their work was as great as it is to-day, and I am quite certain that this spirit and enthusiasm will be found in the generations which have yet to come.

Dentistry is a highly mechanised, skilful craft and you of this generation have advantages which were denied to me.

A new enlarged department with modern equipment, new methods, new techniques, and a greatly increased knowledge of dental problems have been developed and you have, or will have, the opportunity of learning all the new ways. In fact, when you qualify you should all be much better equipped to serve your patients and your hospital than we of my generation were.

On the other hand we have learned a lot by experience and that you have yet to acquire, so perhaps a word of advice may not be out of place. The greater mechanical skill you have or may obtain has its dangers in that you may concentrate too much on a high degree of manual dexterity and neglect the humanities.

There is a risk that a boy or girl taking up dentistry as a career may become over obsessed with the mechanical side of the profession and neglect what I would call the " human " side of his work.

When all is said and done it is a " whole " patient who is put in your care and not just a mouth.

As many of you may know, I do not belong to the school that would divorce dentistry and medicine. To my mind such a division would be a most retrograde step and I sincerely hope that in this country at any rate no such division will occur.

I would in fact like medical and dental students to have the same teaching advantages in the early stages of their careers.

I am averse to specialisation too early in your careers. I have always thought that it is unwise to specialise too early at school. Obtain as good a general education as possible, read the classics if you are able, and obtain a good foundation of knowledge before you specialise. It won't be time wasted I assure you. The only thing that can't be taken from you is the knowledge you acquire through education.

You will find that infection is the same whether applied to surgery, medicine, or dentistry, and therefore it is essential in my mind that you should acquire a good sound knowledge of general pathology before you concern yourselves with the special dental pathology which can only be rightly understood if you have a sound foundation of general pathology.

I am not going to be led into a discussion as to the advantages of your taking a medical as well as a dental qualification but what I do want to impress on you is that you should obtain as good a grounding as possible in general medical subjects so that when you come to deal with patients you will instinctively look on them as human beings first and not just as mouths with teeth in them requiring your attention.

I would like you to go into the Anatomy and Physiology departments as often as you can. You should know the anatomy of the head and neck till it is an open book to you. Every time you put a needle in the oral tissues you should know exactly what structures it goes through.

A good knowledge of physiology is, I think, becoming more essential than ever before to the dental surgeon and time spent on this subject will never be wasted. I realise that the large number of both medical and dental students creates a difficulty but all the same I would try and acquire as good a knowledge of these two subjects as possible.

I would like you all to go into the wards as often as opportunity offers and look at the patients you find there. Observe the patient who is getting well or one who is seriously ill. Look at the patient who is dying when all human skill has failed. In this way you will learn instinctively to view your future patients in rather a different light than you would do if you had not seen cases in the wards. In other words you will be more in a position to judge your patient's general condition before you think of his dental condition.

I would like you all to go into the operating theatres as often as possible and watch the surgeons operating. Don't confine yourself to watching dental operations only. Learn the correct routine of the operating theatre, watch the surgeon and the anaesthetist, and if possible see the patient afterwards, study his reactions and learn the after-treatment given.

I am afraid that I am not one of those people who would make the dental course either easier or shorter. A profession such as ours deserves the best that is in us to give and there is no short cut to success.

I do not agree with those who would cut out of the dental curriculum those subjects labelled academic in order to shorten the time to qualification. If we do not put our profession on a higher plane than this then the dental curriculum should be cut in half, and what a retrograde step this would be. Surely we do not wish to be considered mere tooth carpenters.

It has been my good fortune and most interesting experience to devote part of my limited leisure time during the last year or two to examining the

curricula and visiting examinations in some of the dental schools in the United Kingdom.

It is somewhat surprising to find on analysis that the total time spent on anatomy, physiology, general pathology, special bacteriology, medicine, surgery, and pharmacology, does not as a rule exceed 1,500 hours. As an academic year consists of 1,200 hours one may say that the scientific and medical training of the dentist requires less than one-and-a-half academic years.

The rest of the time is spent in clinical and technical training, and during this time he learns to fill teeth with ordinary plastic fillings, learns to extract teeth under local and general anaesthetics, treat parodontal disease (sometimes) and then in addition he is taught prosthetics, orthodontics, and advanced operative work such as jacket crowns, bridges, and inlays.

Some people maintain that orthodontics, and some of the other procedures already mentioned, are jobs for the specialist and that it might be made possible for a student to break off his undergraduate studies after a couple of years or so during which time he should have acquired a sound technical knowledge of fillings, extraction of teeth, and parondontal treatment, without prosthetics, orthodontics, or advanced operative techniques, and provided that he had had all the usual basic scientific and medical training, and spend a short time in the school dental service under supervision.

After this experience he would return to "school" and spend a further couple of years to complete what is now considered undergraduate training, i.e. crown and bridge work, inlays, orthodontics, prosthetics, and oral surgery, so that he might be registered as a fully-fledged dental surgeon.

Of course some of the ladies might find themselves so happily employed in the school dental service that they might elect to remain "*in statu pupillari*" all their lives or at least until they got married which I am certain most of them would do.

I expect that most dental students would prefer to complete their dental training in all its branches rather than interrupt it in the middle but the proposition I have briefly mentioned might make its appeal to some and would undoutedly help the school dental service. I am not in a position to say whether this very revolutionary suggestion would be either wise or feasible and I should not think of commenting on its possible merits or demerits.

Now a good part of your work consists in reading books and I have always found that it is much easier and more instructive to read good solid text books rather than an abbreviated set of notes however much one may be tempted to obtain knowledge by this easier route. A "tabloid" meal can never be as satisfying as a good beefsteak. Please do not think from what I have said it is meant in any way to decry the necessity of the dental student becoming as efficient as possible in mechanical dexterity.

Nothing will in the long run make up for lack of manual dexterity but what I do want to point out is that mechanical skill by itself is not the alpha and omega of our work.

Dentistry must of necessity always be an exact and exhausting craft and our manual skill must be the final test of our efficiency but this will always, I think, be enhanced if we have a sound general knowledge of the body and its mechanism and are in a position to realise how the effect of our work may affect both the physical and mental welfare of our patients.

I would ask you all to be proud of your profession and always to give of your best to your patients. Their gratitude is one of our greatest rewards.

We are only "ships that pass in the night" and the time we can spend here is limited but posterity will judge us and the recording angel in due course put a good or bad mark against us on our merits.

Richard Bright—A Bio-Bibliography

By WILLIAM HILL, A.L.A.

(Continued).

Death of Bright.

Throughout the closing years of his life he knew that he was suffering from a valvular disease of the heart but he refused to be examined by his friends. He contented himself with taking vast quantities of medicine. On 11th December, 1858, he was taken till with meleana, dyspnoea and severe pain in the chest. He was attended by Babington, Latham, Watson and his neighbour, Mr. Johnson, but the end came some days later early on the morning of the 16th. At the post-mortem, which was performed by Johnson and Holmes with Babington in attendance, it was found that the aortic valves were replaced by a ring of bony matter which apart from a small aperture closed the cavity of the artery. The heart was large, cavities dilated and the walls flabby. The liver was soft and small but healthy. The gallbladder contained 3 or 4 large stones ; the stomach had a trace of blood. The right kidney had two or three small cysts but was otherwise healthy thus showing that there was no foundation for the report that he died of the disease to which he has given his name. The lungs were healthy with no adhesions.

He was buried at Kensal Green on Tuesday, 21st December, 1858, and a memorial tablet was erected to him in the church of St. James, Piccadilly.

Bright and Holloway.

In the opening months of 1846 England, especially London, was flooded with handbills the contents of which were as follows :—

HOLLOWAY'S OINTMENT AND PILLS—EXTRAORDINARY CURE OF A CASE abandoned by Guy's, the Metropolitan, King's College and Charing Cross Hospitals. This fact was sworn to the 8th day of March, 1842, before the Right Hon. the Lord Mayor, at the Mansion House.

Summary of Affidavit. William Brooke, Messenger, of 2 Union Street, Southwark, London, maketh oath and saith, he (the deponent) was afflicted with fifteen running ulcers on his left arm, and ulcerated sores and wounds on both legs, for which deponent was admitted an out-door patient at the Metropolitan Hospital, in April, 1841, where he continued for nearly four weeks. Unable to receive a cure there the deponent sought relief at the following hospitals : King's College Hospital, in May, for five weeks ; Guy's Hospital, in July, for six weeks ; and at Charing Cross Hospital at the end of August, for some weeks more ; which deponent left, being in a far worse condition than when he quitted Guy's where Sir (*sic*) Bransby Cooper and other medical officers of the establishment had told deponent that the only chance of saving his life was to lose his arm. The deponent thereapon called upon Dr. Bright, chief Physician of Guy's, who, on viewing deponent, kindly and liberally said : "I am utterly at a loss what to do for you but here is half a sovereign; go to Mr. Holloway, and try what effect his pills and ointment will have as I have frequently witnessed the wonderful effects they have in desperate cases. You can let me see you again." This unprejudiced advice was followed by the

deponent, and a perfect cure was effected in three weeks, by the use alone of Holloway's Pills and Ointment, after four hospitals had failed. When Dr. Bright was shown by the deponent the result of his advice and charity, he said, " I am both astounded and delighted for I thought that if I ever saw you again, alive, it would be without your arm. I can only compare this cure to a charm—Sworn at the Mansion House of the City of London, this 8th Day of March, 1842, before me,

JOHN PIRIE, *Mayor.*

There was nothing new about the style of the handbill for it was typical of many of the age but the mention of Dr. Bright and his recommendation of Holloway placed it in a different category. Thomas Wakley, the Editor of the *Lancet* and sworn enemy of quackery in all its forms, opened a campaign against Holloway and also indirectly on Bright. In an attempt to discredit the quack he called on Bright to deny the story publicly. On Saturday, March 14th, he wrote in the *Lancet* :—

" We stand almost alone in our denunciation of it, in all its phases as a gigantic evil in and to the profession, a great blot upon public morals, and an enemy to the public safety."

As Bright had not denied the story he ges on :—

" Dr. Bright is, we grieve to say it, a sad specimen of modern degeneracy in this respect."

Wakley went on to urge Bright to seek a remedy in the courts quoting precedents and pointing out that it was his duty to expose the fraud. Bright continued to ignore both Holloway, and what was more annoying, Wakley so the latter returns to the attack on May 2nd, saying that as no denial had been issued could it be true and had Bright given both the advice and the half sovereign. Otherwise why was he

". . . content to suffer his name to remain a veritable part of the stock in trade . . . of one of the most notorious quacks that ever figured upon the public stage,"
thereby becoming

" the timid, left-handed upholder of quackery by sufference."

Bright continued to remain quiet and this only added to the Wakleian wrath for no reformer likes to be ignored. On May 30th he roused himself to a supreme effort saying that Bright's silence was " one of the most insulting affronts that has ever been offered to the profession."

He concluded :—

" Will the general body of the profession suffering as it does from quackery on all hands, sanction a man who, like Dr. Bright, gives consent of silence when his name is so glaringly involved in the support of quackery? Or will they pass a sentence of professional ourtawry upon him."

Two months previously Tennyson had written :

" The noblest answer unto such
Is kindly silence when they bawl"

and Bright had taken it to heart for he continued to hold his peace. Support was forthcoming and the Dublin Medical Press of June 10th answered the *Lancet* in its own vein saying :

" it is abundantly obvious that these low, scurrilous and ungentlemenly medical periodicals must be put down."

Also it pointed out that even if Bright had given the advice was such a course culpable.

Here the matter rested for several years until it was revived by the *London Medical Gazette* in its comment on the Clark *v.* Freeman law suit. This case aroused much interest in the ranks of the profession and it was in some respects similar to Bright's case.

Freeman sold pills at 2*s.* 9*d.* a box which he called Sir James Clarke's Consumption Pills. Despite the extra " e " everyone supposed the Clarke to be Sir James Clark who was a notable authority on diseases of the chest and who

had in 1837 published " A Treatise on Pulmonary Consumption." Freeman's pamphlet issued with the pills gave a " rehash " of the book and in a foreword said :—

" I am fully aware that by introducing my cure for consumption as a patent medicine it will create some astonishment in the minds of the profession."

It certainly did that and more for Sir James Clark applied for a motion for injunction on 31st January, 1848. This was refused, the Master of the Rolls saying that

" it was one of the taxes imposed on eminent men to have their names thus made use of."

The *London Medical Gazette* points out that on this ruling nothing could have been done in the case of Bright and that any practitioner was at the mercy of such quacks.

Later still, in 1853, the Holloway pamphlet appeared in Manchester and the *Association Medical Journal* commented on it and asked if Bright had ever denied the story.

This was not the first time that Bright has been taken advantage of, for in 1839 a small book appeared entitled " Practical observations on the nature and symptoms of dropsy in all its forms " and was written by one Dr. Richard Bright of 25, Ely Place. He devoted space to a brief biographical sketch of himself saying that he had spent nearly six years at Guy's and printing testimonials from various eminent members of the profession including Astley Cooper, Addison, Brodie and Bransby Cooper. This Richard certainly attended Guy's for his name appears several times in the various records still preserved in the Medical School. He was a Licenciate of the Apothecaries Company and M.R.C.S. He furnished Holloway with a testimonial praising his ointment and it seems certain that if Bright had tried to bring legal action Holloway would have been able to have used his namesake as a sound legal prop.

The Man.

In appearance Bright was a small man, stout and with bright twinkling eyes.

The outstanding feature of his character that all writers have stressed is his gift of observation. With him it was " Sensus, non aetas, invenit sapientiam." For himself he said " For my own part I am fond of seeing."

It is to this fact and this alone that his great success was due. His early scientific training had been in geology, zoology and botany and he viewed his later studies with the eye of a naturalist trained to observe the small facts that when pieced together can mean so much. He was not a brilliant man by any means but he had great steadfastness of purpose which caused him to concentrate on a study and keep to it until he had exhausted its possibilities. Only then did he pass on to the next stage. Rarely did he speculate and when he does he moves slowly and logically to his conclusions.

He had an artist's eye. To his great gift of observation he added the ability to state quickly and accurately what he had seen. In his medical work it is by word picture. With his books of travel it is with his pencil and brush. The accuracy of his word pictures cannot be bettered to-day in any textbook.

He was not given to theory. That was for others. Sufficient for him to record his observations : others could theorise. With Caryle he said :

" Truth, fact, is the life of all things."

Credit was always given to those who had paved the way for his own discoveries and to those who helped him. In his preface to Rees and Barlow's paper in the Guy's Hospital Reports he carefully mentions all who had a part in the great experiment and just as carefully omitting all mention of the " onlie begetter." The *Edinburgh Medical Journal* comments : " it was not his nature to press into the arena and demand exclusive honours."

Nevertheless honours came to him and these he carried with winning simplicity. All his obituaries, even those in journals which previously had viewed him with suspicion, bear witness to the regard with which he was held by the profession.

"To say that Richard Bright was the first man of his day in medicine we shall not presume," said the *Edinburgh Medical Journal.*

A kind hearted man he had great sympathy with the underdog and throughout his travels there are references to the lot of the Hungarian peasant which show where his sympathies lay.

Despite his great preoccupation with his work (six hours daily in the P.M. Room and wards) he was a man of wide culture. A notable artist as his books of travel show, he was a great collector of other men, Durer and Schonin particularly. A good linguist, he spoke fluent French and German and never neglected to avail himself of any opportunity to improve his knowledge and always he had a keen interest in the lesser known tongues particularly the Romany.

In his domestic life he was happy. An affectionate husband and a very fond parent, happy in his relations with his children.

A man of deep religious beliefs, even tempered and so slow to anger so that even the scorn of Wakley could not draw an angry word from him, his character made a deep impression on his contemporaries. Two quotations taken from obituaries show how deep this was even after making due allowance for the verbosity of the period. The first from the *Lancet :*

"In him all feel that the medical profession of England has lost one of the most original, observant, and philosophic minds that have ever contributed to the glory and the usefulness of the body. A man of peculiar independence of thought, of high morale, and untiring energy, he has contributed more than, perhaps, any other to form the medical opinion of his day. With the acute application of truth which with him was almost an instinct, he was foremost to perceive that the progress of medical science must now greatly depend upon the successful study of pathological changes ; and by the singular devotion to pathological investigation which characterised his career, he was at once enabled to accomplish investigations which have immortalised his name, while he gave a beneficial impulse to the whole science. The life-history of Richard Bright is one of unswerving energy of purpose and increasing labour."

The second is from the *Edinburgh Medical Journal :*

"There were many cleverer men than he in London ; but among all the three millions there was no man more honest, more pure, more sound in judgment, more warm-hearted and sympathising, more clear headed and far seeing and above all, more sure to be right in the end."

A complete Bibliography of Bright's works will follow.

Theatre Club

The Guy's Theatre Club has much pleasure in announcing their next production, "Dangerous Corner," by J. B. Priestley. This will be presented in the Physiology Theatre on :

Monday,	27th	November,	1950,	at 7.30 p.m.
Tuesday,	28th	,,	,,	,, ,,
Wednesday,	29th	,,	,,	,, 6.15 p.m.
Thursday,	30th	,,	,,	,, 7.30 p.m.
Friday,	1st	December	,,	,, ,,
Saturday,	2nd	,,	,,	,, 2.30 p.m.
		,,	,,	,, 8.00 p.m.

Admission is free, but it is hoped that, although production costs have risen sharply, expenses will be defrayed by a collection which will be made during each performance. The Club, however, will be glad to receive subscriptions beforehand and particularly from those who are interested in the activities of the Club but who will be unable to attend any of the performances. Any profits will be devoted to the purchase of new equipment for the Club.

Applications for tickets from Old Guy's men will be welcomed, and seats will be reserved provided the application is received not later than Monday, 13th November, 1950.

To facilitate the work of the House Manager we would be glad if students and others on the spot will await the opening of the Booking Office in The Students' Union Office at 12.30 p.m. on Monday, 13th November, 1950, when early application will ensure the reservation of seats.

Correspondence

Students and White Jackets

SIR,—May I ask for the hospitality of the *Gazette* to draw attention to the marked lack of warmth, even hostility, with which a notice recently posted in the Medical School has been received. For the notice announced the intention that students should wear white jackets.

Most students prefer to appear both clean and tidy. A white jacket would look clean for the first day, off-white for the next and positively dirty thereafter ; would be hygienic for the first few hours and then a whited sepulchre. In fact, a clean jacket would be required at least every other day. With laundry facilities outside the hospital taking anything from a week to a fortnight between collection and delivery (and at prohibitive prices), is the student required to provide himself with sufficient jackets—at least *six*—and bear the cost of the laundering? Or are the hospital authorities prepared to provide and launder the jackets ; not to mention management of their distribution ?

It is assumed that the jackets would be worn only in the wards and in the out-patients departments ; and also that when not in use they would be kept in the students' lockers. Two points arise immediately. Firstly, the lockers being situated as they are, many a student would take about four minutes to go to his locker and change and a similar time to get to his place of work. The process repeated for the removal of the jacket brings the total time spent in jacket-changing to sixteen minutes per visit involving the wearing of his jacket. With only two visits a day for five days a week, *two and a half hours* would be spent weekly in jacket-changing. Do the authorities intend to put pegs or lockers inside or outside the wards ? bearing in mind the frequent notices that the authorities cannot accept responsibility for loss or theft. And secondly, is it realised just how dirty and dusty are the lockers and the locker-rooms ? All the lockers have louvres in the doors and they rapidly become as dirty as their surroundings.

And finally, with winter approaching, one cannot help thinking of waiting in the colonnade. Would jacket-changing also involve struggling into a compensatory sweater ?

Until the problems of time and space have been solved, is not this "intention" a little premature ?

Yours, etc.,

P.F.A.C.

This letter, amongst others received, has been published simply because the subject of white coats has been officially mooted. Nevertheless, misapprehension regarding the position is certainly widespread. No official decision by the Medical Committee, or any other body, has yet been reached. It is, therefore, not quite correct to say that there is an "intension that students *should* wear white jackets." The proposition having been put forward the views of the student body to such an innovation have been formally invited through the Students' Union.—EDITOR.

Book Reviews

Rest and Pain. By JOHN HILTON. Sixth Edition. Edited by E. Elliot and E. Philipp. *Bell.* Price 25*s.*

This classic needs no introduction, it is too well known. It has not, however, been republished for about 50 years and the authors of this edition the 6th are to be congratulated on their work. At the beginning of the book there is a short biography of John Hilton by Mr. Hedley Atkins. At the end of each of Hilton's lectures an appendix has been added giving the present-day views on the subject he discusses. This addition is an excellent and most valuable innnovation which might well be copied elsewhere. Good, however as the idea may be the somewhat inelegant literary style of these appendices is in marked contrast to the fine literary style of John Hilton.

Z.

The Rhesus—Its Medical, Moral and Legal Aspects. By R. N. C. McCURDY. *Heinemann.* Price 5*s.* 0*d.*

The author introduces his book by indicating the statistical and individual significance of Hæmolytic Disease of the Newborn and then treats of his subject in two parts.

Part I, "The Medical Background," suffers considerably from the book having been written for both the medical and lay publics. There is too much explanation and over simplification for the medical reader and too many details and references to the literature for the lay reader. The treatment of this section as a whole is uneven: too much space is devoted to particular topics such as the original work of Gregor Mendel and the principles of treatment of the afflicted infant, whereas others, such as the clinical picture of the disease, receive but scant attention. This section indicates the outline of the problem but is in no way adequate for one who has to deal with it.

Part II concerns "Some Wider Issues"—wider indeed! The origins, histories, moral and legal aspects of contraception, sterilization, abortion, adoption of children, artificial insemination and divorce are all dealt with more particularly as they may arise in the "social therapy" of immunologically incompatible marriages. The three chapters on artificial insemination, occupying nearly one quarter of the book, are both interesting and stimulating to further thought.

R. K. A.

Practical Biology for Medical and Intermediate Students. By C. J. WALLIS. *Heinemann.* Price 21*s.*

This book appears to be intended for the student who has to undertake a course of practical biology without adequate assistance from demonstrators or teachers. As such, it should not be a necessary part of the library of any student who is fortunate enough to be in attendance at a University institution. The fact that 12 years elapsed between the publication of the first edition and the second, and then only 3 years between the second and the third, is probably accounted for by the well-recognised dearth of science teachers available for secondary school and technical-college work; to students learning their biology in such institutions, this book may be a real help. But it would be a far greater help if it gave any idea of the type of drawing expected by the examiners in any public examination in biology. At present the majority serve as excellent examples of what the candidate should strive to avoid.

G. E. H. F.

ACADEMIC

November		Exhibition. Surgical Department. "The Surgery of the Sympathetic Nervous System."
21st	1.00.	Professor R. E. Lane. Clinical Lecture. "Lead Poisoning and its Prevention."
23rd	1.00.	Professor R. E. Lane. Clinical Lecture. "Dust Diseases."
	4.30.	X-Ray Demonstration. Gordon Museum.
24th	1.00.	Dr. Hampson. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.
25th	10.00.	Surgical Department. Clinico-Pathological Meeting. Anatomy Theatre.
27th	1.00.	Dr. Rink. Clinical Lecture. "Some By-ways of Anaesthesia."
28th	1.00.	Dr. Bishop. Clinical Lecture. "Disorders of Sex."
	5.15.	Dental Society. Mr. G. B. Elphicke. "Air Brasive."
30th	1.00.	Mr. Eckhoff. Clinical Lecture.
	4.30.	X-Ray Demonstration. Gordon Museum.
December		Exhibition. Surgical Department. "Chronic Diarrhoea."
1st	2.15.	Medical Department. Combined Round. Pre-Clinical Classroom.
4th	1.00.	Mr. Cook. Clinical Lecture.

SPORT

November			
25th	Rugby 1st XV	*v.* London Irish.	(H.O.P.)
	Rugby "A" XV	*v.* London Irish "A"	(Sunbury.)
29th	Rugby 1st XV	*v.* London University.	(H.O.P.)
December			
2nd	Rugby 1st XV	*v.* Coventry.	(H.O.P.)
	Rugby "A" XV	*v.* Coventry Ex. 1st.	(Coventry.)

Sport

ASSOCIATION FOOTBALL

1st Round United Hospitals Cup

H.O.P. on Nov. 6th.

Guy's 2 *v.* University College Hospital 2

The match started with U.C.H. attacking strongly but their finishing was weak and Guy's gradually gained the initiative and Cornhill struck the crossbar with a fine drive. The play continued to fluctuate and just before half-time only a brilliant piece of positional play by Wylie prevented U.C.H. opening the score, he kicked off the line when all seemed lost.

The second-half continued as the first but it was U.C.H. who scored first when Roden, the visitors' right-half, took a free kick from just outside the penalty area, whilst the Guy's defenders were standing around looking as bewildered as the Liberal Party, and directed the ball just inside the upright.

Guy's quickly equalised when Leckie took a long shot which hit the underside of the bar before entering the net. However, apparent disaster loomed up when with fifteen minutes to play a defensive slip let in the U.C.H. left-winger who scored.

Guy's were kept in the cup, however, by a wonder goal from Watmore. A ball was coming across to him from the wing and with the ball knee high he whipped the ball unerringly into the net.

Half-an-hour's extra time was played and two tiring teams battled on into the gathering gloom of the evening. Guy's had perhaps the better of this extra period but the real miss came from U.C.H. when their left-winger with no one to beat except the goalkeeper was foiled by a brilliant save by Lyon.

Team : M. Lyon ; P. Southgate, J. Wylie ; D. Matthews, D. Allan, A. Prince ; A. Fearn, B. Cornhill, K. Watmore, C. Leckie, D. Oldfield.

Southern Amateur League Match

H.O.P. on Saturday, November 4th

Guy's Hospital 5 *v.* Cuaco 3

Guy's gained two more points in their third Southern Amateur League fixture and have now got five points out of six.

An unexpected misfortune befell the Hospital side in the first minute when a corner was sliced by a defender into the net. This however did not deter the home side who quickly equalised when Watmore headed in from a corner. This even state of affairs did not last as Matthews accurately placed a free kick on to Watmore's foot and the centre-forward accurately placed the ball out of the visitors' goalkeeper's reach.

Another free kick taken by Prince resulted in a goalmouth scramble from which the ball came out to Cornhill who shot it into the top of the net.

At this stage of the game it was all Guys' and just before the interval a long curling shot by Oldfield beat the goalkeeper to make the score 4—1.

On the resumption Cuaco attacked incessantly for the first fifteen minutes and Miller, the visitors' Scottish amateur international, gave Guy's defenders a worrying time. However, the Hospital's goal remained unbeaten and Guy's came into the picture once again and Oldfield, following up a shot that the goalkeeper partially saved, turned the ball through the narrowest of openings into the net.

Cuaco, still fighting, scored when a defender headed the ball, almost out of the hands of Lyon on to an attacker's boot.

Guy's were then awarded a penalty for hands but Matthews sliced the greasy ball outside the post.

Just before time Cuaco scored a third but the end came with Guy's attacking hard.

Team : M. Lyon ; P. Southgate, J. Wylie ; D. Matthews, D. Allan, A. Prince ; A. Fearn, B. Cornhill, K. Watmore, D. Harris, D. Oldfield.

HOCKEY

Guy's *v.* Orpington

Won 6—2 at H.O.P.

Saturday, 4th September, 1950

A wet pitch made accurate stopping and quick recovery impossible. The defences of both sides were never sound. The Orpington centre-forward scored the first goal of the game with a first-time shot at a pass that penetrated Guy's defence. Blake equalised for Guy's with a solo run-through. Orpington scored the next goal, again Blake equalised with a manoeuvre more suited to lacrosse than hockey. To atone for his unorthodoxy Blake left Earl and Meyer to score the next four goals for Guy's. Meyer, McGill and Dobson-Smyth, playing as reserves, contributed a fair share to Guy's victory. Alan Blower must be thanked and congratulated for umpiring the game single-handed.

Guy's second team deserved their fine victory. Guy's fourth team were to have played City of London College II. Owing to a mistake of fixtures both Croydon II and Guy's IV turned up to play the College. The College very sportingly stood down to allow Guy's to play Croydon.

Guy's 1st Team : A. F. Jones ; G. H. Danford, D. A. McGill ; W. E. Dobson-Smyth, E. A. Murray (Capt.), R. M. Sandfield ; D. V. Duckworth, D. E. Blake, S. Earl, H. Meyer, R. Hodson.

Other Results :

Guy's II	*v.* Orpington II	Won 10—1.
Guy's III	*v.* Hay's Wharf	Lost 2—3.
Guy's IV	*v.* Croydon II	Lost 2—9.

Hospital Information, etc.

APPOINTMENTS VACANT.

Applications are invited for the post of whole-time Registrar to the **Department of Psychological Medicine.** Duties to commence on 1st January, 1951, for one year in the first instance. Salary £775 per annum, in accordance with National Health Service Terms and Conditions of Service. Application forms may be obtained from the Dean, Guy's Hospital Medical School, S.E.1, to whom completed applications together with the names of three referees must be forwarded not later than **12th December, 1950.**

Applications are invited for the appointment of Assistant to the **Director of the Department of Pædiatrics.** The appointment is for two years in the first instance, to commence as soon as possible. Applicants should hold the M.D. or M.R.C.P. Salary £1,250—£1,750 per annum, with superannuation and family allowance. Copies of standing orders are obtainable from the Dean, to whom applications should be forwarded not later than **12th December, 1950.**

Applications are invited from registered **Dental Practitioners** for the following teaching appointments to commence duties on 1st February, 1950.

Conservative Dental Surgery.

2 **Registrars** to attend on 2 and 3 sessions per week.

OR

1 **Registrar** to attend on 5 sessions per week.

Salary for these appointments at the proportional rate of £775 per annum in the first year.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1, to whom applications should be sent not later than **12th January, 1951.**

Applications are invited for the appointment of Registrar to the **Genito-Urinary Department.** Duties to commence 1st January 1951. Appointment until 30th September, 1951, in the first instance.

Forms of application obtainable from the Medical School Office and should be lodged with the Dean **not later than 1st December, 1950.**

NOTICE

"THE CHRONIC RUNNING EAR"

An Exhibition will be open between the hours of 12 and 2 p.m. in the Ear, Nose and Throat Department (Out-Patients) during the next three weeks.

AWARDS

Territorial Efficiency Decoration

Major D. J. Wigginton. Capt. A. R. Darlow.

PASS LIST

Royal College of Surgeons of England
L.D.S.

Second Examination, September, 1950

A. Allison, D. E. Blate, E. F. Bonson, J. M. G. Cameron, F. L. Coker, P. N. Dawson, K. R. Dixon, M. F. Dixon, J. A. G. Dunn, S. W. Edworthy, J. E. Gresham. D. R. Habberfield-Bateman, H. J. Halestrap, R. F. Hall, G. R. B. Ingram, A. F. James, L. W. Kay, H. C. F. Meyer, D. H. O'Flynn, A. G. Orme, A. G. Prince, W. F. Reading, E. P. Reynolds, D. R. Richardson, C. F. M. Robinson, J. M. Scoones, J. W. Sharpe, R. Sharp, P. J. Southgate, A. T. Tarrant, D. L. J. Thomas, D. J. Timms, G. H. Tucker, M. S. Tyrell, G. E. Wade, G. A. Watkins, W. H. Watson, C. W. White, G. M. J. Williams.

University of Cambridge

Pharmacology

Michaelmas Term, October, 1950

L. J. Bishop, R. D. France, R. D. Hernaman-Johnson, G. Screech.

Royal College of Obstetricians and Gynaecologists

Membership

H. F. Hills, H. A. Rowley, S. A. Scorer, E. A. Williams.

University of London

General Second Examination for Medical Degrees (Internal Students)—September, 1950

Dennis Harris.

University of Oxford

Long Vacation—September, 1950

Forensic Medicine and Public Health

M. S. Compton, M. C. Gill-Carey. P. V. Skinner.

Special and Clinical Pathology

M. S. Compton, M. C. Gill-Carey, P. V. Skinner.

PAPER'S BY GUY'S MEN

Allsopp, C. B. Report on the Co-carcinogenic Action of Croton Oil used in conjunction with Cholanthrene. *Brit. Emp. Cancer Campaign, 27th Annual Rep.*, 1949, p. 248.

Atkins, H. J. B. Report on the Mastitis Clinic at Guy's Hospital. *Brit. Emp. Cancer Campaign, 27th Annual Rep.*, 1949, p. 258.

Sears, W. G. Heart Failure—I. Explaining Causation. *Nursing Times*, 1950, **46**, 1002.

Dowling, G. B. Advances in Dermatology. *Practitioner*, 1950, **165**, 378.

Ingram, Frank. Early Radiological Diagnosis of Disease of Bone. *Med. Pr.*, 1950, **224**, 323.

Bishop, P. M. F., and others. A Study of Cortisone and other Steroids in Rheumatoid Arthritis. *Brit. Med. J.*, 1950, ii, 849.

Kauntze, Ralph. Oedema of the Legs. *Clin. J.*, 1950, 79, 253.

CHANGES OF ADDRESS

L. Ingram, D.M.R.D., L.D.S., 22, St. Augustine's Road, Canterbury, Kent. Tel. : 4777.

J. K. Morgan, M.B., M.R.C.P., 6, The Crescent, Alwoodley Park, Leeds. Tel. : Leeds 73241.

D. Stafford-Clark, M.D., M.R.C.P., Valley Lodge, Butlers Dene Road, Woldingham, Surrey. Tel. : Woldingham 2127.

BIRTHS

PALMER—On October 25th, 1950, at Auckland, New Zealand, to Marian, wife of Geoffrey Blake Palmer, M.R.C.S., L.R.C.P., a daughter.

DEATHS

HOSKING—On January 21st, 1950, John Edward Francis Hosking, J.P., M.R.C.S., L.R.C.P., of Deniliquin, Australia.

EDS. { R.G. / P.A.L.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1627 2nd December 1950 Ninepence

PASSIM

TO enter the present controversy on hospital registrarships is for a non-swimmer to plunge into a sea of boiling oil. Fire and fury obscure even the best-intentioned efforts, while no small number of people, including the more sensational among the public journalists, exult in the addition of yet more fuel to the flames. Again, naturally enough, personal considerations so easily confuse honest opinion.

Two factors, one admitted and the other implied, have most probably guided the authorities in their recent decision. In the first place, registrar posts are to be limited in number and kind to the likely vacancies for consultants. Secondly, every effort is to be directed, probably at the instigation of a realistically-minded Treasury, to the cutting of costs. To the registrars themselves it must be abundantly clear, if they pause to take stock of the position, that for only a very small proportion of them is the eventual " power and the glory." Short of vast increases in the consultant ranks, an unlikely eventuality in our present national economic straits, many of the present registrars are bound to be denied their ultimate aspirations. Realisation, then, has come by official decree rather than by the slow but, in the end, equally painful process of inevitability. In the meantime, admittedly, a host of well-trained doctors will find themselves in an unenviable predicament. Immediate interim measures are, therefore, imperative with, we hope, more attraction than the " three Armed Forces . . . the Colonial Service . . . and a number of overseas hospital and university appointments." What is more, no matter how desirable in the long run, any sudden abrogation of the existing hospital facilities would be catastrophic to a degree.

On the other point of economy, the Treasury may well be verging on a delusion. To eliminate " registrars " as such fails in itself to reduce the total budget for the nation's medical salaries. Be they registrars or clinical assistants, consultants or general practitioners, they are all doctors deserving of payment. To talk, on the other hand, of extravagances and to quote " wigs, false teeth, glasses and administrators " is to wave a crusading banner in ignorance of the facts and to raise a battle cry with about as much sense of reality as Don Quixote converging upon a windmill. The actual cost of these items is proportionately small indeed. Yet economies, and effective ones at that, could easily be secured. Transport of patients to and from hospitals at the present time must consume a vast sum, not all of it a justifiable expense. The cost of a patient in a hospital bed for one week is enormous, yet so far as he is concerned it is " all-found." His neighbour, who elects to be treated at home, must bear all personal costs. Would it really be so difficult or unfair to levy some charge for keep ? Medicines, duly ordered we know, constitute a terrific item of cost. In the first place, the doctor himself may overlook this point. Even less so does it appear as a fact to the patient who is the recipient of such bounty.

In general, we feel, the medical edifice is out of balance. Lip-service is paid to the general practitioner, but scant regard to his welfare or prospects. Surely it is high time that some conclusion was officially reached about his

status, his remuneration, his home and his facilities—not forgetting that in some instances the establishment of health centres is actually held up by the attitude of the practitioners themselves. The hospitals, after all, should serve not as ends in themselves but as part of the service as a whole, not as " crystal palaces " of festival delight, but as adjuncts and reference centres to the practitioners around them. Wherever possible hospital activities should be curtailed. The registrars previously so sheltered would then treat patients in their natural environment, far more testing than the academic isolation of the out-patient clinic. Perhaps, then, students would more readily appreciate the meaning, and pleasure, of general practice. For the majority of them now, unfortunately, the elegant consultant who performs as their teacher represents the summit of their ambitions, while, by contrast, the practitioner ourside is recognised only as the careless author of those brief notes that accompany patients on their entry to hospital.

Not only must a proper policy be formulated, to use the current jargon, but it must be put into immediate effect and once and for all the position of the general practitioner should be made perfectly clear. Relative opportunities will then be more obvious. Meanwhile, improvised measures are required for the registrars so precipitately shaken. Their abilities must be properly employed, albeit in a different field, their services adequately rewarded and at no stage should they be left without hope or without position. To increase the present consultant force is impracticable and to give young graduates any false ideas in this direction would be culpable. For the sake of the public purse those economies which are possible should be applied.

May we finally plead, in this " age of reason," for a thoughtful approach to this vexed question and, above all, for less of that flamboyant and, at the same time, fearful and lack-confidence spirit which cries wolf so readily and blames all adversity, not on fate or chance, but on to someone else and, usually, on to some higher authority.

For recent misprints in the *Gazette* a sincere and prominent apology is extended both to Mr. Arthur Bulleid and to his brother and partner, Mr. W. Allen Bulleid, as well. The name of the former, instead of that of the latter, should have appeared, not only as the newly elected President of the Dental Society, the opening meeting of which was thus erroneously reported in our issue of 4th November, but also as the author of the Presidential Address given before the same Society and printed in full in our last number. Mr. Arthur Bulleid has generously accepted our regrets personally expressed for these errors and his brother has felicitously commented, " While I am in almost complete accord with what he said, I rather dissent from calling himself ' getting old.' I assure you he is quite wrong, as proof of which, though some years older, I still regard myself as only just starting to get old."

The inaugural dinner of the Guy's North Wales Dining Club was held on November 25th at the Blossoms Hotel, Chester. Dr. John Forbes, the organiser, presided over a convivial gathering of sixteen members and six guests, who had come together from places as far apart as Caernarvon and Sheffield to drink the toast of " Guy's Hospital." It was a lighthearted and a very successful evening—perhaps to some extent because no speeches were allowed—and there was general enthusiasm for the proposal to hold similar dinners every six months. The next one will be in May at Llandudno, when it is hoped to invite a distinguished Guy's Man to come and address the club on " any subject except Medicine."

We are sorry that in this current issue so little attention has been paid to Sport. Considerations of space have so demanded.

The Life of a Dentist

By H. C. VISICK.

This fragment, left by an old Guy's dental student who died recently, has been lent to us by his widow. We feel that it will interest our readers and will give an idea of its author in a way no more formal obituary could do.

DENTISTS, like other men, are sometimes born with a restless desire to follow knowledge like a sinking star beyond the confines of daily routine ; this is the story of such a spirit.

My father died at the age of 42 leaving eight children, the youngest being only a year old. If it had not been for his foresight in having a certain amount of insurance we might have been landed in the poorhouse. We lived in a very pleasant small village in Sussex ; we were taught by a resident governess leading a very happy family existence. Our mother refused the offer of the Masonic Order to educate the older boys for she wished to have us brought up a united family, and we have been thankful for this as we are a very united family.

We four small boys lived and played like ordinary country boys gaining a lot of pleasure out of ordinary things such as bird nesting and netting sparrows at night which were cooked and enjoyed the following day, a most delicious meal.

We were good shots with the catapult and managed somehow to get trips on the old side paddler when towing barges taking dredgings dumped from the canal to the sea. In those days there was none of this mad rush to attend cinemas and other artificial amusements.

Eventually we were too big for the governess and were sent to Brighton to the Grammar School, travelling each morning by rail. We got into one serious corner when, owing to our being such good shots with the catapult, we made a target by prearrangement, of the signal box on the way to Brighton. We must have dented the glass pretty badly for the very next day when the train stopped at West Brighton, as Hove was then named, we three brothers were pulled out of the train which proceeded without us. We shed a few tears more in fear than contrition and fortunately for us, we received a splendid character from our Headmaster and so got off with a caution and a fright.

I was apprenticed to a dentist and came to London to study at Guy's Dental School. London I explored thoroughly. The docks I knew well, I made friends with a tugman and used to spend nights towing sewage barges down from London Bridge to below Woolwich and Dartford and then dump them. I think the fellows thought I had some private girl somewhere. I loved London, I used to leave ties at home and roam about like a tramp with cotton waste round my neck and sleep in some low place near the Victoria and Albert docks ; awfully dirty but cheap. I saw many interesting people.

After successful examination for the dental diploma of the Royal College of Surgeons I went to America where I visited scores of factories. I always went over any place I could get into directly I reached a city, especially those of note. In Philadelphia I always went for a long walk every night as in London, and learnt to know the city.

After some two years of experience and study in America when I had accumulated a little money I set out for the West, Denver and Colorado Springs. I lodged for some weeks with a man employed at one of the gold mills, and, disguising myself as a workman, he took me over it. I also made a trip to Pike's Peak, a roaring gold camp situated high up in the Rocky Mountains. When we had no money we had to rely on Shanks' pony and every trip took time. My next stop was in a gold-mining village high up in the Rocky Mountains, in Utah, where I worked for a dentist for a few weeks. The night I arrived he met me at the station a long way from the township in a two-horse sledge. We were wrapped in huge buffalo robes, relics of the past, as the thermometer was standing at 20 below zero ; I was thankful to share a bed with the village

barber between his grey blankets. When I proceeded to put on my pyjamas he was highly amused and said he had never seen anyone dress up to go to bed before.

In the 1890's it was the custom for students at the University of Pennsylvania from Australia and New Zealand who wanted to see a bit of England in the vacation and to do it on the cheap, to ship as cattle men to England, returning as deck hands at the end of September at one shilling a day. I used to go down and see my pals off, and as we walked down to the docks we had many a good laugh at the so-called cattle men. They used to dress up in their oldest and raggedest clothes and hats in an attempt to deceive the real cattle men who, if they recognised a stiff among themselves would put him through the hoop and make him suffer for his intrusion amongst the real professional ranks. Some men were not good at disguising themselves. One who afterwards became a professor in Australia could not help looking like a professor even at that time. Another who has since become a chairman of the Dental Board of his State, looked like a real comic cut with a straw hat with only half a brim.

It was real hard work ; 800 head of cattle eat a lot of hay which has all to be hauled up from a lower hold, but they were good company, always warm, and they kept the ship steady. The return trip from Liverpool was a comparatively soft job, mostly polishing brass and swabbing decks. If lucky and looking the part, it was possible to be taken on as a third-class steward, a much coveted position.

In 1905 I booked on the S.S. *Haverford* as a cattle man and my pass which I still treasure, states that if I should come on board drunk my passage would be cancelled and a deposit of two dollars forfeited, to be paid to the employment agent I booked with ! Jack, an Australian. He has since become a leading light in Australian dentistry. He was a magnificent fighter. We arrived early at the " Glory Hole " as our quarters were called, a large place lined with iron bunkers for about thirty men ; there was one with a port hole which was much coveted ; Jack wrote on a piece of paper " the fighting weight of the man who owns this bunk is 180 lbs.," and went on deck. Later when he returned the bunk was still empty and all eyes were concentrated on it. There was a rather halfwitted boy to help water the cattle appropriately named " Buckets." Jack was kind to him and stood up for him when there was any rough play. At the end of the voyage Jack invited him to " the biggest blow-out you can eat." In making this trip it was unwise to have any extra luggage for it would have been ripped open or stolen, so Jack had posted on to Liverpool a parcel containing his shore-going clothes. Arriving at Liverpool he got his parcel at the dock with some difficulty in proving his identity, found a lavatory for a wash and brush up, went and changed his clothes. When he appeared before the astonished " Buckets " the boy burst out with " I knowed you was a gent."

One of the things I did in Philadelphia was to get a pass to go over Baldwin's huge locomotive works, the biggest in the world at that time. They turned out at least one completed locomotive per day. Every kind of engine to huge 8 coupled articulated monsters for hauling freight trains through the mountains. I made friends with the chap who drove the completed locomotives out of the yard and spent many evenings with him. It was great fun, and I learnt a great deal about railways in America. I often went for quite long trips with trains which were going to join others. At that time it was the custom of the train gang to ride on top of the coaches walking along as the train progressed. It proved dangerous and unauthorised, people got killed very often, but risked it to get a free ride. They are called " bums " and are roughly treated by the train staff if they are caught. I was all right as I was known and they were friendly and would let me know where to get off and where to change so as to get home that night. It was always night work and was most exhilarating. Before the bridge was reached there would be ropes hanging down to warn people to duck their heads. Freight trains had air brakes and the trains would stop suddenly without warning. That is how I nearly lost my life and shot off the top of one car on to another and was surprised when one of the regular hands let off a stream of bad language at me for nearly getting killed. I thought it decent of him to have troubled about me.

UTAH, NEVADA, CALIFORNIA, WYOMING.

In the 1908's America seemed capable of absorbing all the emigrants from Europe. There was such a shortage of labour. The shiploads of emigrants arrived in New York and were a strange sight, such as we never saw in England ; boats crowded with strangely dressed fur-capped Balts sailed up to the quays and were quickly absorbed into the United States. Every city had stores labelled " Employment Bureau " displaying placards from the sidewalks to the roofs clamouring for men for every conceivable job. I had been in Colorado some time when I saw a huge notice in Denver " Two hundred men wanted, ship for the Lucin cut off to-night." This was a navvy's job, tipping millions of tons of rock into the salt lake to build a causeway and shorten the railway track to the west. I should be 500 miles further west so I promptly signed on as a navvy. About midnight we boarded an emigrant train ; what a sight. The emigrants had been travelling three or four days on end all crowded together, some from the west of Ireland, a place I knew well and we soon made friends. Americans thought that when English and Irish met they always had a free fight. I explained that that was only political nonsense.

After a few weeks I left for Nevada and stepped for Reno. What a wild spot ! It was a front line town and no mistake. The abuse of divorce had not yet reached it. It was just a wild west lumber camp wallowing in mud and mess. The steep mountains rise from beside the railway and are lost in mist. There is a lake at the foot of the hills and down to this the lumber men have cut a sort of " Cresta " run in the mud, for the logs come hurtling down to the water. They start high up somewhere in the swirling mist and come speeding down the mountain side, sending up a shower of mud and water, and plunge into the pool with a mighty splash. As soon as they quieten down the lumber men come leaping and jumping from log to log with marvellous agility and manoeuvre them into place with their peevies.

There was a lumber camp at the foot of the Rockies and my impression was that it teemed with rain day after day. I fed at the long wooden shed which had a bar at the back and three or four billiard tables beyond on which a dozen or more men sprawled asleep (or drunk) clad in their dungarees and caulked boots. These boots are for walking on floating logs with spikes an inch long covering the whole of the sole, terrible weapons in a fight, but enabling the lumber jacks to jump on to the floating logs and kicking the spikes into the soft bark, stick on like a leech. Every man carries a peevy, a seven foot pole, iron tipped, with a hook to lever the logs around and to get them into position. These lumber jacks are daredevils at their work and spring from log to log and keep jumping like squirrels where a slip would be death.

I felt that I had really reached the wild and woolly west at last, but I soon wanted to push on the last lap to the coast and leaving in a terrible snowstorm we started to cross the Great Divide to California. Going through a snow-shed we were held up for hours by an avalanche of mud and logs and snow which had crashed through the side of the snow-shed. While hundreds of men wrestled with the wreckage our locomotive was uncoupled and used as a bulldozer to push huge logs on one side of the track. From the divide we ran down thousands of feet through the sierras in grand weather.

San Francisco harbour was full of whalers being fitted out for sea. I had always had a longing to go whaling and spent weeks haunting the docks trying to screw myself to shipping for a cruise as a whaler. When I found that a trip generally lasts three years unless you are lucky, I felt that I could not afford the time and gave up the idea. The whalers are a terribly rough crew but if I had struck one decent chap amongst the men who swarmed over the boats I should have probably ventured. Eventually I settled down to work for a dentist.

When summer came I felt that I had saved enough money and decided to make a move. There are two of the world's wonders in California which I determined to see. I had already explored on foot everything within 40 miles of San Francisco including Berkley and Palo Universities.

The Yosemite valley, a mighty chasm in the Nevadas, is one of the show places of America, but at that time was 75 miles from the nearest railway and

the days of motor cars had not yet arrived, so it was not so well known as it is to-day. The other wonder was several groves of " Big " trees. I was planning to walk to the Yosemite valley from San Francisco, fortunately through the kindness of the general manager of a lumber railway, I was given a pass on the train, which went as far as the Chinese camp the nearest point to the valley. At this point I met two old Chinamen who were foraging in the forest for certain parasite growths on the trees which the Chinese look upon as great delicacies. The growth is like mistletoe ; they were knocking it off the trees with the aid of several long poles tied together. Being young and energetic I was able to swarm up the trees and hack off big chunks of this growth with my knife, with the approving and encouraging grunts from the Chinamen. After some hours of this I proceeded on my way and spent the night in my blanket in the dried-up bed of the river I awoke somewhere about midnight with a nasty snarling noise coming towards me. I pulled out my revolver and in trepidation pulled the trigger when I thought the animal was about three feet away. To my annoyance it missed fire but the animal cleared off and I sat up till dawn afraid to lie down in case it came back. I think it was the smell of food which was under my head as a pillow that attracted it.

I had a long, hot journey that day and towards evening I ran into a gold-mining camp where the young miners were having a jumping contest in the dust. Receiving a challenge from the jumpers I threw down my pack and joined them but was hopelessly outclassed. Before I resumed my journey I discarded all my superfluous kit, including the untrustworthy revolver, making it up into a bundle and leaving it at the camp.

Too many friends had advised me what to take for the journey and I had already learnt that you can travel much lighter than people imagine. I had no coat but a grey blanket to roll myself in at night, and only a tin pannikin to boil my tea in. The climate of California at that time of year was glorious. It took me about six days to reach the valley through the most wonderful scenery. One night I met a gold prospector and we travelled together and enjoyed a most interesting talk. He was a grub staker which means that he had a partner who had advanced the money for his food and outfit and who, if he was successful in looking for gold, would share the proceeds. He had been at it all his life and was full of interesting accounts of his wanderings. By this time I had learned to appreciate company. When I reached the valley the sight was so magnificent that I felt well rewarded. The perpendicular sides of the valley are anything up to 5,000 ft. in height. There are five rivers which pour over the edge with a drop of up to more than 2,000 ft. The floor of the valley is thick with verdure from the spray of the waterfalls. After spending the night on the floor of the valley I decided it was too beautiful to leave in a hurry and I stayed about looking for a job that would support me. There was a camp under a 3,000-ft. perpendicular rocky cliff where a man named Curry was running a camp for sightseers—a great circle of tents and a shed under the trees where they had their meals. He readily offered me a job and I spent a month or more there. My job was to be handyman ; we waited on the visitors at meal times before sitting down to our own food. When the daily six-horse coach arrived in the evening we helped the visitors down and took their luggage to the tents, prepared a huge log fire which was lighted more for effect than for warmth. When it was dark another fire was lighted on the top of the cliff 3,000 ft. above us and burning logs came blazing down, scattering sparks in all directions ; it was a grand sight. I also spent much of my time working on a piece of land which we were fencing in. We chopped down the trees which we split up for rails. There was also milking of cows to be done and hoeing the potato crop. The valley was uninhabited in winter owing to the deep snow so that there was a good deal to be done to get the crops to grow in time. I found the animal and insect life of the valley most interesting. I set traps and managed to catch a skunk and a porcupine, neither of which seemed to take the slightest notice of me except they kept me behind them and I was glad to get away quickly when I found out what I had caught. I also caught three rattesnakes and carried their heads in a cocoa tin knowing how interested some people would be in the mechanism of their fangs. I carted them all the way back to Brighton, England, and had the pleasure of handing them over to Mr. Douglas Caush who I knew was a keen microscopist.

After a few weeks I made a journey of four days to go and see the Mariposa big trees. I had met a bearded old boy named Galen Clark who was the first man to tell the modern world about them though they had been there for 6,000 years.

Two of the vistors at camp Curry wanted to get a guide to take them to the top of the highest mountain, Tenaya, to see the sun rise over the Sierras. As they could not obtain the services of a regular guide they asked me if I would organise the trip which takes three days. I got hold of a mule and loaded her up with camping kit, blankets, frying pan, kettles, etc., and enjoyed the experience of seeing the country without any expense to myself and finished the trip with more money in my pocket than I started with.

In those days there was much talk of rattlesnakes out West. A common legend was that a rattlesnake would not cross a rope lying on the ground. It sounded plausible and when I started out I carefully unwound my pack rope each night and encircled my sleeping place within its circumference. This was all right until I met my " Fortyniner " and it came to passing the night with him. I felt a little shamefaced about this business but thought I could hardly prepare my charm without offering him the benefit of the circle although I must admit when I looked at his hardy features I felt some qualms as to how he would take it. However, he gave a chuckle and said he didn't set any store by that sort of stuff. His opinion was that it was safer not to sit on a rattler. Dead trees or piles of stones should be avoided, that it was dangerous to lie near them. I had already experienced the urge to keep something solid behind my back when camping alone that in any case my hemp rope had no virtue for it should be woven from a maiden's hair ! He regaled me with blood-curdling stories of men waking up in the morning and finding a rattler coiled up on their chest attracted by the warmth and starting to rattle when they made the slightest movement. Not the most soothing bedtime story for a tenderfoot. Tenderfoot was the proper name for me for I was so chafed by walking I could hardly take my boots off.

After California I had two month's tripping with six Mormons and in a hunting trip climbed Lavina, 14,000 ft. above sea level. After this we went back to Utah. In two months we only met one party of shepherds.

That is the end of California. It is God's wonderful country like paradise, trees and lovely flowers—no men.

December

ACADEMIC

		Exhibition. Surgical Department. " Chronic Diarrhœa."
4th—8th (inclusive)		Demonstration. Gordon Museum. " Cushing's Syndrome."
7th	1.00.	Mr. Wass. Clinical Lecture.
	4.30.	X-Ray Demonstration. Gordon Museum.
8th	1.00.	Dr. Hampson. Clinical Lecture.
	2.15.	Medical Department. Clinico-Pathological Meeting. Pathology Lecture Theatre.
9th	10.00.	Mr. O. S. Tubb, St. Bartholomew's Hospital. Surgical Departmental Round. Clinical Theatre.
11th	1.00.	Dr. Forman. Clinical Lecture.
12th	5.15.	Dental Society. Mr. P. R. Shepherd. " Practice Management."
13th	4.45.	Guy's Science Club. Dr. B. McArdle. " Disturbances of Potassium Metabolism." Staff Common Room. (Tea 4.30.)
14th	1.00.	Dr. McArdle. Clinical Lecture.
	4.30.	X-Ray Demonstration. Gordon Museum.
15th	1.00.	Sir John Conybeare. Clinical Lecture. Cerebro-Spinal Fever.
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
18th	1.00.	Mr. Carter-Braine. Clinical Lecture.

SPORT AND SOCIAL

9th		Rugby 1st XV *v.* Old Cranleighans. (H.O.P.)
		Rugby "A" XV *v.* Lewes. (Lewes).
	7.00.	Students' Union Christmas Ball. Paddington Hall, Queensway.
16th		Rugby 1st XV *v.* Moseley. (H.O.P.).
		Rugby "A" XV *v.* Norwich. (Norwich).

Richard Bright—A Bio-Bibliography

By WILLIAM HILL, F.A.L.A.

(Continued).

HIS WORK.

Others far more qualified than the present writer have described Bright's work and the purpose of this section is to give a brief survey of his writings. For more detailed treatment the reader is referred to the excellent articles by Sir William Hale-White in the *Guy's Hospital Reports* for 1921 and Dr. Thayer's Bright Oration in the same journal for 1927.

Other writers before Bright had noticed that dropsy was associated with changes in the structure of the kidney and also that albumin in the urine occurred in certain forms of dropsy but no one had recognised its true significance. Bright, in his years of hospital experience that led to the publication of the "Reports," saw this significance. Sir William Hale-White wrote in the above-mentioned article :—

"With the inspiration of genius, Bright arrives at the belief that the primary cause of the symptoms in all these cases is disease of the kidneys . . .

Assuredly this is one of the most wonderful series of papers in medical literature. A disease, which presents symptoms of derangement of almost every organ of the body, is unerringly ascribed to the kidney. We are shown how to diagnose it. Its causes, its symptoms, its treatment and its post-mortem appearances are given with such a completeness and accuracy that after nearly a century no error has been detected in Bright's description, and if we except a few facts that have been gleaned by instruments he did not possess, nothing of importance has been added."

Bright's name has been associated with disease of the kidney to such an extent that his work in other directions has to some extent been overshadowed. Second in importance to his renal studies is his work on the nervous system. This work is contained in the "Reports" Vol. 2, and in several papers in the *Guy's Hospital Reports*. He gives over forty examples of cerebral hæmorrhage ; recognises that tuberculous meningitis can be caused by a blow and hemiopia in cerebral hæmorrhage. He gives two excellent descriptions of aphasia and is conversant with epileptic somnambulism describing the case of a man who walked from Clapham to Shoreditch in an unconscious state. Among the cases is the famous description of hydrocephalus with an analysis of the fluid by Bostock. In a paper to the *Guy's Hospital Reports* he shows that he was well aware of the diagnostic importance of retention of consciousness. He also shows that he was one of the first to appreciate the theory of cerebral localisation.

Bright, following the precedent of his predecessors at the Hospital, stresses the connection between chorea and rheumatism. He was, according to Wilks, the first man to describe a mitral murmur in chorea.

In the "Reports" he gives excellent descriptions of acute bronchitis, pulmonary abscess following pneumonia and was also the first to describe laryngeal pthisis. On page 226 of the same work he describes the administration of oxygen to a boy of 14. He also describes the lung in whooping cough and gives what is probably the first description of broncho-pneumonia and collapse in pertussis.

His papers on tumours of the abdomen were published originally in the *Guy's Hospital Reports* and later reprinted in a volume of the New Sydenham Society series. The first of these deals with acephalocyst hydatids and he goes on to discuss ovarian, splenic, renal and hepatic tumours, each paper illustrated with a wealth of cases and pictures.

His paper on diseases of the pancreas was considered by Sir William Hale-White to be his most important in this field for in it he describes for the first time the connection between fatty stools and malignant disease of the pancreas. In a paper to the *Guy's Hospital Reports* he describes yellow atrophy of the liver although he does not name it.

Peritonitis always interested him and he was the first man to describe chronic peritonitis. He also described Addison's disease nearly twenty years before Addison (*Reports, Vol. 2., p.* 247) but he never connected it with disease of the suprarenals. His description of appendicitis in the Textbook of Medicine is a classic.

BRIGHT'S ARTISTS.

Bright, as is well known, was an artist of outstanding merit and although he illustrated the two travel books he left the artistic side of his medical work to others. The nearest approach to it is in several cases he supervised the drawing. Five artists were responsible for the illustrations in his books. They were George Scharf, Thomas Fairland, F. R. Say, C. J. Canton and William Hurst, the latter two being official artists to Guy's Hospital.

Say was responsible for most of the drawings in the Reports of Medical Cases but of him we know nothing.

George Scharf was born in Bavaria in 1788 and studied in Munich. He became interested in lithography which had recently been introduced and was well known for his work in the medium. Between 1810 and 1815 he wandered all over Europe earning a somewhat precarious living by painting the officers of the contending armies, at times working under fire. In 1816 he came to England where he settled down, becoming well known for his illustration of scientific subjects. For Bright he drew the series of pictures to illustrate Bright's account of Cardinal, the celebrated case of hydrocephalus, in the Reports of Medical Cases, Vol. 2. Apart from his scientific work his great interest lay in London and he made many drawings of his adopted city. His eldest son (also an artist) became Sir George Scharf.

Thomas Fairland, born in 1804, was a pupil of Fusela at the Royal Academy. At first he worked at line engraving but later turned his attention to what was then the new technique of lithography and produced some good work. Later still he devoted himself to portrait painting but he was unable to make an adequate living and died of tuberculosis in 1852. As well as some of Bright's works he was responsible for Astley Cooper's work on the Testis.

Canton was the official artist to Guy's Hospital, being appointed by Benjamin Harrison. A good natured man who lived in a perpetual state of confusion, he was a little too fond of liquid refreshment and it was said of him that he was one of the cleverest but at the same time one of the idlest fellows in existence. He was responsible for many of the illustrations of abdominal tumours as well as some of those in the Reports of Medical Cases. He also illustrated Astley Cooper's monograph on Dislocations.

His successor was William Hurst who resembled him in many respects particularly in the matter of beer and confusion. Indolent and careless in everything except his drawing, he did some excellent work for Bright (the papers on renal disease) and Addison (The Supra-renal Capsules). His watercolours are beautiful examples of scientific art. He was a good natured man who would cheerfully leave the most urgent work for the sake of a day's fishing. He died in 1886.

Bright was well served by his artists. Perhaps working for a fellow artist inspired them to the best work, but the quality of all their work reached a very high standard and is matched by Bright's word painting. The man who could write " the vacant lassitude of fever " and the long passage in which he describes the clinical course of nephritis deserved to have good illustrators.

Bibliography

SEPARATE WORKS

1.

Disputatio Medica Inauguralis de Erysipitate Contagioso; quam ex auctoritate reverendi anmodum viri, D. Georgii Baird, SS.T.P., Academiae Edinburgenae praefecti; necnon amplissimi Senatus Academici consensu, it nobilissimae Facultatis Medicae decreto; Pro Gradu Doctoris, summisque in Medicina honoribus ac privilegiis rite et legitime consequendis; auditorum examini subjicit. Die XIII Septembris hora locoque solitis.

36p. 8vo. Edinburgh, R. Annan, 1813.

NOTE.—Bright's Graduation Thesis. The subject had long interested him and a paper of his had been read (but not published) to the Medico-Chirurgical Society.

2

The same.

NOTE.—This is a modern reprint (c.1928) of the above prepared by the late Sir Arthur Hurst. It was originally intended to print the thesis in the Guy's Hospital Reports for 1928, Vol. 78, but there was no room and only the title page was reproduced. The sheets were bound and formed a modern reprint of the thesis.

3

Travels from Vienna through Lower Hungary; with some remarks on the state of Vienna during the Congress in the year 1814.

xviii, 642p., 10pl., Roy. 4to., Edinburgh, A. Constable, 1818.

NOTE.—The story of his travels in Hungary. The illustrations are by him although 10 were engraved by another hand. The style of his writing is perhaps a little stilted and elaborate by modern standards but in keeping with the best writing of the period. The experience gained whilst putting his impressions on paper was of great value later on when he was recording his observations on disease.

4

Review of the above.

Edinburgh Review, 1818-19, **31** *; 214.*

NOTE.—Speaks favourably of the book.

5

Outlines of a course of lectures of the Practice of Medicine, delivered in the Medical School of Guy's Hospital.

viii, 128p., 8vo., London, R. Taylor, 1827.

NOTE.—As was the custom Bright published an outline of his course of lectures.

6

Reports of Medical Cases selected with a view of illustrating the Symptoms and Cure of Diseases with a reference to Morbid Anatomy.

2 vols., xvi, 231p., 14pl. : xii, 724p., 40pl., 4to., London, Longmans, etc., 1827-1831.

NOTE.—The work that made his reputation. The first part of vol. 1 contains the famous work on Nephritis illustrated by 24 cases. In this volume also are cases and comments on liver disease, bronchitis and phthisis. On page 149 is what is probably the first description of laryngeal phthisis. In vol. 2 is an early description of the administration of oxygen (page 227). In the same volume are 40 cases of cerebral haemorrhage and accounts of erysipelas of the head, tumours of the brain, wry-neck, Tic Douloureux, Epilepsy, Tetanus, hydrophobia, paralysis and various accidents to the spinal cord. Also in this volume is his celebrated account of a case of hydrocephalus. He also connects chorea with rheumatism and describes Jacksonian epilepsy.

7

Review of the above.

London Medical Gazette, 1827, i ; 88, 122.

8

The same continued.

Ibid., 1831-2, ii ; 11, 52, 83, 154, 196, 310, 476, 939. 1832-3, i ; 10, 229, 325, 766.

NOTE.—These are very long reviews illustrated with copious extracts from the work itself.

9

Address delivered at the commencement of a course of lectures on the Practice of Medicine.

48p., 8vo., London, R. Taylor, 1832.

NOTE.—At the request of his pupils Bright had this address published.

10

Cases and observations illustrative of diagnosis when adhesions have taken place in the peritoneum, with remarks upon some other morbid changes of that membrane.

41p., 8vo., London, G. Woodfall, 1835.

NOTE.—A reprinted version of his paper in the Medico-Chirurgical Transactions (No. 32).

11

Cases and observations illustrative of renal disease accompanied with the secretion of albuminous urine.

64p., 8vo., London, 1836.

NOTE.—Reprinted version of his paper in the Guy's Hospital Reports (see No. 40).

12

An account of a remarkable misplacement of the stomach.

8p., 1pl., 8vo., London, 1836.

NOTE.—A reprinted version of No. 46.

13

As No. 11.

NOTE.—Reprinted in Dunglison. American Medical Library, 1838, pp.105-42.

14

As No. 11.

NOTE.—Reprinted as an appendix to Osborne, J. Pathologie und Therapie der Wassersucht, Leipzig, Cnobloch, 1840.

15

Clinical memoires on abdominal tumours and imtumescence.

xviii, 326p., 8vo., London, New Sydenham Society, 1861.

NOTE.—This is a collection of his papers in the Guy's Hospital Reports (see Nos. 51, 52, 53, 54, and 59). It was edited by G. Hilaro Barlow. The original plates were redrawn for the edition. Some bibliographies give the date as 1860.

16

Die erkrankungen der nieren (1827-36) in deutscher uebersetzung new herausgegeben und eingeleitet von Erich Ebstein.

119p., 5pl., 12mo., Leipzig, J. A. Barth, 1916.

17

Original papers of Richard Bright on renal disease.

viii, 172p., 7pl., 8vo., London, Oxford University Press, 1937.

NOTE.—This collection of his papers edited by Dr. A. A. Osman consists of the relevant part of the Reports, vol. 1 (No. 5), two articles from the Guy's Hospital Reports (Nos. 43, 58), the second Gulstonian Lecture (No. 31) and an appendix (No. 109).

(To be continued)

Obituary

BESSIE GARFIELD VIVIAN.

After her general training at Guy's Hospital and her fever training at the North-Western Fever Hospital, Hampstead, Miss Vivian devoted her life to the nursing services of the Army, the Metropolitan Asylums Board, the London County Council and the Dartford Hospital Management Committee. During the first World War she served in Egypt and Palestine as a nursing sister and Deputy Matron in Queen Alexandra's Imperial Military Nursing Service.

For five years after the war she served in India and later in the Hospital Ship "Assaye". In 1925 she returned to the service of the Metropolitan Asylums Board as Sister Tutor at the North-Western Fever Hospital. When the London County Council assumed responsibility for this service Miss Vivian was progressively promoted through a series of matrons' posts of increasing importance. She was first appointed to the Millfield Convalescent Hospital for Children, Rustington, then to St. Luke's Hospital for non-pulmonary tuberculosis at Lowestoft, and after that to the South-Western Fever Hospital, Stockwell. Just before the second world war she was seconded to the Central Office of the London County Council to act as a Principal Matron. With the onset of the war she became a Nursing Liaison Officer in the Emergency Medical Service of the Ministry of Health. In November, 1940, she was appointed Matron of St. Olave's Hospital in Rotherhithe, but was soon asked to undertake responsibility for the Leavesden Emergency Hospital. When this hospital was transferred to the Canadian Army Miss Vivian become Matron of the Horton Emergency Hospital. At the end of the war Miss Vivian was transferred to her last post at the River Hospitals at Joyce Green on 12th April, 1947, where she had to undertake the onerous duties of running the nursing service of the hospitals, adapting them to their peace-time use, and inaugurating the new general training school for nurses. With her vast nursing, administrative and teaching experience she took this job in her stride and was so successful that, at a time when almost all hospitals were showing a decline in recruitment, Joyce Green Hospital showed a marked increase. Her ability at recruiting staff was recognised by the Dartford Hospital Management Committee, who quickly enlisted her services to speak at girls' schools. She rapidly gained the confidence and held the attention of all those who listened to her. Her dignified carriage, smiling speech, cheerful and homely disposition, combined with her tolerance and kindness were in marked contrast to the traditional and old-fashioned hospital "dragon."

When the best surgical skill in the country failed to eradicate the painful illness which afflicted her, she returned to her home in Cornwall to die. "Transit umbra lex permanet."

The Pupils' Physical Society

A joint meeting of the Society with St. Thomas's took place on Thursday, October 26th. It was a most successful meeting and was attended by 70 or more students. The 6 cases shown included some with excellent physical signs and some whose diagnosis was unknown. The large attendance naturally made it difficult for everyone to examine the cases and for future meetings it might be an improvement if more cases were shown than were intended afterwards to be discussed.

The meeting opened with dinner in the College and after the demonstration of cases a discussion took place in the Spit. Without detracting from the very hard work of the organisers of the evening, Dr. Trounce and Mr. Guerrier, whose efforts made the evening such a success, it must be owned that this was the least successful part of the evening. Rare and unusual diagnoses were offered, complicated and unimportant investigations were produced. In any such gathering of ordinary students these are bound to be uninformed and not of much value or interest to the majority. The evening nevertheless was most enjoyable and a great encouragement to those who are trying to spread interest in the Pupils' Physical Society. We congratulate the organisers on their work.

Correspondence

Baker

SIR,—May I be permitted through the correspondence columns of the *Gazette* to express my grateful thanks to the large number of Guy's men who have so generously contributed towards a testimonial fund on my retirement, resulting in the receipt of a handsome cheque.

To all subscribers I wish to convey my deep gratitude for the cheque, and also for the magnificent album containing their signatures which accompanied the presentation.

My thanks are also due to Professor W. R. Spurrell for all the trouble he has taken on my behalf, as I am sure much of his valuable time must have been taken up, and also for the happy days I have been privileged to spend with him in the Physiology Department.

My fifty years as an employee in the service of the Medical School has been filled with happiness and I shall treasure pleasant memories of numerous friendships made in the course of my duties.

Yours, etc.,

A. BAKER.

25, Arundel Road,
Tunbridge Wells,
Kent.

SIR,—Would you be kind enough to publish this letter of thanks to all the named and unnamed contributors to Baker's present. Gifts have been received from Guy's men who are widely separated in space and time; the letters that have accompanied these gifts have been very touching.

The signatures have been collected into an album and this was presented to Baker on November 14th together with a cheque for £150.

Yours, etc.,

W. R. SPURRELL.

Physiological Laboratory,
Guy's Hospital.

Maternity Department Reports

SIR,—As you probably are aware, the Maternity Department at Guy's publishes each year a report on its work. These are distributed and read, not only throughout the country, but all over the world.

From time to time we get requests for copies of old numbers of this report, which we are for the most part able to supply, but have, however, no copies left of the Report for 1937.

May I, therefore, through the columns of your widely read journal, ask any Guy's man who has a copy of the 1937 Maternity Department Report which he no longer requires, please to send it to the Department of Obstetrics and Gynaecology where it will be greatly appreciated, and fulfil a most useful purpose.

Yours, etc.,

H. A. RIPMAN.

Department of Obstetrics and Gynaecology,
Guy's Hospital.

Students and White Jackets

SIR,—I must apologise for having caused some confusion in the mind of your correspondent P.F.A.C., and others, concerning " white apparel in the wards." However, a word of explanation.

" Intention " and " jackets " were words used in the original information supplied to the Students' Union, and were passed on as such. It was subsequently made clear that no such specification had been intended. A revision of the original notice has been made and can be seen on the S.U. Notice Board.

Yours, etc.,

ANTHONY S. DOMINICK,
Chairman.

Students' Union,
Guy's Hospital,
London Bridge, S.E.1.

SIR,—The hundred-and-twenty-five " admirals " of the Physiotherapy School wish to draw the editor's attention to the article appearing in the *Daily Express* of 22nd November.* With regard to the objection raised in this article, we support the Dean's suggestion, considering it unhygienic to attend in the same jackets social functions and patients in the ward.

Considering the specimens of " white " jackets already about the hospital, the question of laundry appears to be redundant. As for the waste of man-hours, a complete change of overalls (plus epaulettes), can be effected in .25 hrs. bi-weekly ; if the coffee custom prevalent in this hospital is included in the time a further .75 hrs. is necessitated.

The question now arises of distinguishing features. We would suggest a system of sashes varying in colour with the seniority of the student, who will, of course, not be eligible for the " Senior Service," but the chorus from the " Mikado " will be open to all.

In conclusion, are we to understand that the attitude adopted by the students in this matter indicates a gradual decline in the Medical School ?

Yours, etc.,

TWENTY-SIX ADMIRALS.

Guy's Hospital, London, S.E.1.

* **" We Can't Pay to be Men in White "**
By Chapman Pincher

The 600 students at Guy's Hospital are in revolt against an official notice suggesting that they should wear white jackets in the wards.

They are protesting to the Dean of the medical school.

They claim they cannot afford to buy the jackets, or pay for having them laundered. One points out that, because of the placing of lockers, each man would spend about two and a half hours every week just changing jackets.

" There is also the danger that making us wear white jackets might not be the end," said another.

" The physiotherapists already wear white jackets and gold epaulettes as well. They are walking about looking like admirals." —*Daily Express.*

Babies and Habits.

SIR,—If, to judge from Dr. Dukes' letter in your issue of 7th October, he finds the sight of lily-white nappies blowing in the breeze disgusting and would save our wives the trouble of washing them, will he please disclose how newly-born babies should be trained to hold their water until they are held out over a pot ? Or would N.A.P.K.I.N.* object ?

More seriously, for our species sphincter control is expected at eighteen months, which is about a tenth or twelfth part of the age at which we become fully grown. At what age are dogs fully grown, and at what fraction of this age are puppies expected to be house-trained ?

I am, etc.,

P. WETTSOM.

* National Association of Producers of Kerchiefs and Importers of Napkins, Number 2, Any Street, W.C.

Guy's Shop

SIR,—The " Guy's Shop " *could* be a very welcome corner for those people who have not the time to spare to hunt the Borough cafes. But to judge of my experience there over a period of many moons, it would probably be far more expedient to resort to the latter.

Surely in these days of enlightened organization it would be a simple matter for everyone to form a queue and only buy their own requirements.

It is most exasperating to hear a voice from outside the self-important bundle (who hope to be served next) shout to someone nearer the counter for one or more teas, so many " sticky buns," etc., or to hear a massage girl say, " What sandwiches have you ? " And when told, " Only paste," to then ask, " No cheese ? No tomato ? " etc., and then stand having a conference with " Jean " as to whether she should have a paste sandwich or an ice cream !

Sisters who venture *into* the Shop with long lists presumably from a ward of patients are attended to on the spot, while others whose feet and ribs show signs of the great " Counter Battle " are left holding their bruises but not always their patience !

Certainly attend to patients, but have the lists left with or collected by, the shop sales ladies, and then attended to during their slacker periods. Let people queue for *their own* goods with their minds already decided as to their requirements—the Front Line was never a place to hesitate, and remember, there are no " Under the Counter " cheese or tomato sandwiches. Lastly, the Shop is in no immediate danger of falling over. Should that danger ever arise, I have no doubt that the Works Department will supply the necessary equipment to hold it up, so please, when served, allow the Shop to stand on its own—the same as all healthy people should.

There also appears to be a number of people who are in possession of a password giving the right of entry to the side door and immediate service. May we all be told what this word is or how such priority may be obtained ? I would say that in spite of everything set out above, the sales ladies do present a cheerful appearance.

Yours, etc.,

Guy's Hospital, LEONARD C. BEANEY.
London, S.E.1.

The Junior Staff Committee

SIR,—The Junior Staff Committee feel that, while their existence and activities are known to many of those members of the junior staff who work primarily in the School, this is not the case with many of those whose duties lie rather in the Hospital. In fact all registrars, both part- and full-time, are represented, as well as the staffs of the pre-clinical and clinical departments.

The Committee is elected each year by the Junior Staff meeting which takes place at the beginning of the School year, that is in October. It meets twice a year, or more often if required, to consider any matter relating to courses of study, provision for teaching and facilities for research, and any other matters of interest to the School, which last item is often interpreted liberally to cover a variety of questions. The Dean is an ex-officio member of the Committee, and when possible attends its meetings. Any recommendations made go automatically to the Dean, and if it is thought necessary may be brought up before the School Council. The Committee also nominates four of its members to the School Meeting for election to the School Council.

The members of the Committee this year are :—

Mr. H. A. Ripman, Mr. L. F. W. Salmon, Dr. J. C. Houston, Mr. H. P. Guerrier, Dr. J. M. McArthur, Dr. W. E. Bain, Dr. J. O. Laws, Dr. C. W. T. Shuttleworth, Dr. D. J. Anderson, Mr. B. H. Pentney, Mr. B. J. Rickard, Mr. P. R. Rowland, Mr. R. D. Emslie, Mr. J. W. McLean, Mr. A. D. Robinson, Mr. W. J. Tulley.

Representatives on the School Council: Dr. Houston, Dr. Laws, Mr. Rickard, Mr. Emslie.

Yours, etc.,

Department of Pathology, JOHN O. LAWS,
Guy's Hospital Medical School. *Honorary Secretary.*

Guy's Hospital Clubs' Union

At the last meeting of the Clubs' Union Council a statement of the accounts for the year 1949-50 was received. A summary of this statement is given below :—

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 1949-50.

To Ground Expenses :—	£	By Subscriptions Received During Year	£
Wages of Groundsmen	803		4,880
Rent of ground at Honor Oak Park	465	„ Grant from Medical School	600
Hire of other pitches	5	„ Grant from Dental School	400
Income Tax, Schedules "A" and "B"	87	„ Rents from Tenants	90
General Rates and Water Rate	226	„ Net Gate and Stand Receipts	255
Gas and Electricity	34	„ Interest on Reserve Fund	16
Telephone	11	„ Interest on Bank Deposit	8
General Repairs	69	„ Donations	3
Petrol and Oil for Mowers	33		6,252
Repairs to Mowers	92		
Seed, Fertilisers, Sand, etc.	141	„ Balance, Being Excess of Expenditure Over Income for the Year	221
Coke	102		
Equipment	71		
General Expenses	29		
Outstanding Repairs to Pavilion and Stand not covered by Grants or War Damage	857		
Repairs to Tennis Courts, Surrounds, etc.	96		
	£3,121		
„ Expenses of Constituent Institutions :—			
Association Football Club	85		
Athletic Club	31		
Boat Club	64		
Cricket Club	81		
Dental Society	35		
Golf Club	11		
Hockey Club	82		
Ice Hockey Club	4		
Lawn Tennis Club	30		
Music Club	37		
Pavy Gymnasium	60		
Physical Society	7		
Rifle Club	36		
Rugby Football Club	240		
Sailing Club	21		
Squash Club	31		
Students' Club	1,024		
Students' Club (Table Tennis Club)	7		
Students' Union	10		
Swimming Club	10		
Theatre Club	8		
	£1,914		
„ Fares and Travelling Expenses :—			
Association Football Club	25		
Athletic Club	2		
Boat Club	9		
Cricket Club	5		
Hockey Club	36		
Rifle Club	4		
Rugby Football Club	336		
Sailing Club	27		
Squash Club	1		
Swimming Club	5		
	£450		
„ Other Expenses :—			
Guy's Hospital Gazette (Staff)	67		
Guy's Hospital Gazette (Students)	232		
Maintenance of Squash Courts and Gymnasium	240		
University of London Athletic Union	67		
British Dental Students' Association	2		
Office Salaries and Superannuation	200		
Pensions	4		
Printing and Stationery	49		
Audit Fee	16		
Insurances	94		
Income Tax, Schedule "D"	1		
Sundry Expenses	16		
	£988		
Total Expenditure	£6,473		£6,473

It will be seen from these figures that over the twelve months concerned a working deficit of £221 was incurred.

BUDGETS 1950-51

For the current year 1950-51, budgets for the Constituent Institutions have been approved as follows :—

	£		£
Association Football Club	105	Physical Society	8
Athletic Club	50	Rifle Club	57
Boat Club	91	Rugby Football Club	640
Cricket Club	109	Sailing Club	60
Debating Society	5	Squash Club	34
Dental Society	42	Students' Club	1,057
Golf Club	30	Students' Union	10
Hockey Club	152	Swimming Club	25
Music Club	39	Table Tennis Club	20
Pavy Gymnasium	60	Tennis Club	46
	(Plus £60 in reserve)	Theatre Club	50

Sport

RUGBY

Guy's *v.* Old Blues

At H.O.P. Result—Won 3—0.
4th November, 1950.

Played in murky November weather with a slippery ball, this game produced undistinguished rugby. Guy's played the better football and should have scored at least 12 points more, but poor finishing by the three-quarters spoiled many promising movements.

The only score came from a penalty kick by W. G. Davies, who later failed with another penalty awarded after T. Smith had crossed the Old Blues' line.

Amongst an extremely hard working pack Lund, Davies and Clark were prominent, and in the backs James tried exceedingly hard when the opportunity was given him.

Guy's *v.* Edinburgh Academicals

At H.O.P. Result—Lost.
13th November, 1950.

They game started sluggishly, each team seeming bent on proving it was more tired and had had a more strenuous week-end than the other. However, the Academicals soon felt their inferiority in this sphere and countered with a blustering offensive which they maintained throughout most of the rest of the game. It appeared only too easy for Guy's to slip back into a defensive frame of mind, and only too difficult to justify this by the sure tackling and long accurate kicking it demands. On one occasion a Scottish wing went straight through our line to score, scorning even to "hand-off" as he did so. A similar gap existed in the line-out through which the opposing forwards gained ground time and time again.

Probably the most galling sight was the rapidity with which the ball passed down the Academicals' three-quarter line to their wings whilst, when Guy's obtained possession, our wings remained starved and cold and unable to show their undoubted worth.

HOCKEY

Guy's *v.* Birmingham University.

At H.O.P. Result—Lost 1-2.
10th November, 1950.

For the first time in this season Guy's fielded the full first team. Guy's, with a low sun behind them, had most of the play in the first half. At half-time Guy's were one goal up, though several opportunities for scoring had been missed. The fast pace of the game continued into the second half. Birmingham pressed hard and were rewarded with a fine goal from their outside left.

A mêlée from which the ball emerged to trickle into Guy's goal gave Birmingham the winning goal. Opie scored Guy's goal and Linahan played a fine game at right-back. Birmingham were the fitter side and deserved to win this fast, clean and very enjoyable game.

Results : **Guy's *v.* Gravesend.**

Guy's I *v.* Gravesend I	Lost 0—7.
Guy's II *v.* Gravesend II	Lost 2—3.
Guy's III *v.* Gravesend III	Lost 2—7.

18th November, 1950.

The Annual Dental Ball was held on the night preceding this game. The result was not a measure of the condition of the team on Saturday. A mistake in our fixture list led to Guy's II with two first team players going away to play Gravesend I. Gravesend II came to H.O.P. to play a Guy's team of ten men which included five first team players. Guy's III played Gravesend III at Gravesend. The games were played in heavy rain. In spite of this and the results, all teams gave a good account of themselves and thoroughly enjoyed themselves.

Guy's I *v.* Wallington I.

Away. Result—Draw 2—2.
25th November, 1950.

This game was played in a fog that made the pitch slippery and reduced visibility in the closing stages of the game. The Wallington inside-right scored the first goal by taking the ball through from the half way line. Bishop came out from goal to meet him but could not move quickly enough on the wet pitch to save a fine goal. Wallington's centre-forward scored the next goal by taking a fine centre from the right. Meanwhile Guy's were pressing hard and were rewarded with a goal when Opie defiected a pass from Hodson. During the second half Guy's continued to press hard. Blake took the ball into Wallington's circle, some pretty footwork ended with a reverse kick to the top of the circle. Duckworth took the pass and scored with a shoulder-high shot which went through the net. It was a pity that the strenuous efforts of Guy's which promised victory should be rewarded with two lucky goals.

Other results :

Guy's II *v.* Wallington II	Won 1—0.
Guy's III *v.* Wallington III	Lost 0—2.
Guy's IV *v.* Wallington IV	Lost 1—2.

GOLF

DENTAL STAFF *v.* STUDENTS

At Tandridge Golf Club
November 1st, 1950

It was decided to have an all-day match for our return fixture this year. As always Mr. Mansie succeeded in raising a very good team for the Staff. The weather was kind to us and we were off to an early start at 9 30. We played 4-ball matches in the morning and at lunch time the score was, Staff 3, Students 3. Donner and Harrington having won their match at the 16th and just to show it was no fluke, Harrington proceeded to sink a 25-yard putt at the 17th !

In the afternoon we played foursomes and reinforced by a jolly good lunch the Students got the better of the matches.

Once again we would like to take the opportunity of thanking the Staff so much for such a splendid day. J.M.D.G.

House Appointments

1ST DECEMBER, 1950

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger : Mr. I. B. Thomas.
„ Mr. Wass : Mr. J. A. C. Bamford.
„ Mr. Blackburn : Mr. P. H. Kendall.
„ Mr. Lawrie : Mr. H. F. Pile.
„ Mr. Glover : Mr. B. H. Bass.

Appointed for six months, the first three months as Assistant House Surgeon.

OUT-PATIENT OFFICERS.

Mr. J. H. Wilson
Mr. P. L. Williams
Mr. J. Taylor
Mr. D. R. Pugh
} *3 months.*

HOUSE SURGEONS.

To Sir Heneage Ogilvie : Mr. A. W. R. Williamson. 6 *months.*

„ Mr. Massie : Mr. R. G. Beard. 3 *months.*

„ Mr. Eckhoff : Mr. T. S. Hart. 6 *months.*

Mr. Atkins : Mr. C. P. Mills. 3 *months.*

HOUSE PHYSICIANS.

To Sir John Conybeare and Dr. Hardwick : Mr. A. W. Cook. Mr. K. F. Robinson. 3 *months.*

„ Dr. Boland and „ Dr. Baker : Mr. H. M. Baird. Mr. K. W. Gray. 6 *months.*

„ Dr. Hampson and „ Dr. Kauntze : Mr. W. H. Watson. Mr. A. M. Reader. 6 *months.*

„ Dr. Douthwaite and „ Dr. Mann : Mr. R. Goulding. Mr. M. J. Hunter. 3 *months.*

RESIDENT OBSTETRICIANS.

1.7.50—31.12.50 : Mr. E. P. H. Shortt.
1.9.50— 28.2.51 : Mr. R. G. O. Taylor.
1.11.50— 30.4.51 : Mr. A. E. R. Buckle.
1.1.51— 30.6.51 : Mr. P. J. Dwyer.

OPHTHALMIC HOUSE SURGEON.

Mr. I. G. Johnston. 6 *months.*

THROAT AND EAR HOUSE SURGEON.

Mr. D. G. E. Aldridge. 3 *months.*

DERMATOLOGICAL HOUSE PHYSICIAN.

(*Non-Resident*).

Mr. D. C. Turk. 6 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. M. C. Gilbert. 6 *months.*

CHILDREN'S HOUSE PHYSICIAN.

Mr. J. M. D. Hooper. 3 *months.*
Mr. C. Steer. 6 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. W. Van't Hoff. 6 *months.*

HOUSE SURGEON TO THE NEURO-SURGICAL UNIT.

Mr. F. G. Ellis. 6 *months.*

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. W. J. C. Symonds. 3 *months.*

RESIDENT JUNIOR CLINICAL PATHOLOGIST.

1.10.50—31.3.51 : Mr. J. T. Cecil.
1.10.50—31.3.51 : Mr. D. P. Winstanley.

ORPINGTON HOSPITAL.

E.N.T. House Surgeon .. .. Mr. P. R. Sowerby.

Orthopædic House Surgeon .. .. Mr. A. V. Watts.

JOYCE GREEN HOSPITAL.

House Surgeon .. .. Mr. I. J. MacQueen.

House Physician .. ..

PEMBURY HOSPITAL.

House Surgeon .. .. Mr. W. R. Edwards.

QUEEN MARY'S HOSPITAL, SIDCUP.

Mr. I. M. Sharpe.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the post of whole-time **Registrar** to the **Department of Psychological Medicine.** Duties to commence on 1st January, 1951, for one year in the first instance. Salary £775 per annum, in accordance with National Health Service Terms and Conditions of Service. Application forms may be obtained from the Dean, Guy's Hospital Medical School, S.E.1, to whom completed applications together with the names of three referees must be forwarded not later than **12th December, 1950.**

Applications are invited for the appointment of **Assistant** to the **Director of the Department of Pædiatrics.** The appointment is for two years in the first instance, to commence as soon as possible. Applicants should hold the M.D. or M.R.C.P. Salary £1,250—£1,750 per annum, with superannuation and family allowance. Copies of standing orders are obtainable from the Dean, to whom applications should be forwarded not later than **12th December, 1950.**

Applications are invited for the post of whole-time **Surgical Registrar** for the **Guy's-Maudsley Neurosurgical Unit,** from December 1st, 1950. The Unit (at present 16 beds), will eventually be transferred to the Maudsley Hospital, when accommodation is available. The post will be tenable for one year in the first instance. Forms of application may be obtained from the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, and should be forwarded to him together with copies of testimonials not later than **22nd December, 1950.**

Applications are invited from registered **Dental Practitioners** for the following teaching appointments to commence duties on 1st February, 1950.

Conservative Dental Surgery.

2 **Registrars** to attend on 2 and 3 sessions per week.

OR

1 **Registrar** to attend on 5 sessions per week.

Salary for these appointments at the proportional rate of £775 per annum in the first year.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1, to whom applications should be sent not later than **12th January, 1951.**

CARDS AND CHRISTMAS GIFTS

A few Christmas Cards are still available in the Gazette Office, 6, St. Thomas Street, S.E.1,

and

Framed Hanslip Fletcher Etchings, 7*s.* 6*d.* and 12*s.* 6*d.* each (5 views)—Personal collection only.

GUY'S HOSPITAL REPORTS

1950. Vol. 99

PARTS 2 — 3

Contents

H. St. H. Vertue. Our Emblem the Serpent. pp. 79-96.
Sir James Learmonth. The Pathological Physiology of Gangrene of the Limbs. pp. 97-109.
K. D. Allanby, W. D. Brinton, Maurice Campbell, Frances Gardner. Pulmonary Atresia and the Collateral Circulation to the Lungs. pp. 110-152.
J. Dick. Benign Neurogenic Tumours of the Stomach. pp. 153-164.
H. Greenburgh and W. H. H. Merivale; and A. Tickner and D. Watson. The Value of Clinical Laboratory Tests II. The Excretion of Total Neutral 17-Ketosteroids in Disease. pp. 165-177.
Geoffrey Reynolds. The Heart in Arachnodactyly. pp. 178-208.

PAPERS BY GUY'S MEN

Every effort is made to ensure that the list of publications appearing under this heading is complete and comprehensive. From time to time, however, Papers by Guy's Men do appear in Journals which fail to come under our scrutiny. We therefore ask those Guy's Men whose works are overlooked to let us know about such incidents, and we ask for their forebearance in any event when we are guilty of omissions.

Allsopp, C. B., and another. The Toxicity of a Product of Reaction of Mustard Gas with Serum Proteins. *Brit. J. exp. Path.*, 1950, **31,** 258.

Atkins, H. J. B. The Painful Nodular Breast. *Practitioner*, 1950, **165,** 482.

Atkins, H. J. B. Fibroadenosis. *Brit. J. Surg.*, 1950, **38,** 147.

Blacker, C. P. The Control of Population. *Eugenics Review*, 1950, **42,** 149.

Brock, R. C., and Campbell, Maurice. Valvulotomy for Pulmonary Valvular Stenosis. *Brit. Heart, J.*, 1950, **12,** 377.

Brock, R. C., and Campbell, Maurice. Infundibular Resection or Dilatation for Infundibular Stenosis. *Brit. Heart. J.*, 1950, **12,** 403.

Clark, J. V., and another. Anæsthesia and Surgical Procedure for Bronchoscopy. *J. Laryng. Otol.*, 1950, **64,** 570.

Hunt, J. N. An Interpretation of the Histamine Test of Gastric Secretion. *Gastroenterol.*, 1950, **16,** 231.

Passey, R. D., and another. Freezing and Desiccation of Mouse Tumours. *Brit. Med. J.*, 1950, ii, 1129.

Passey, R. D., and others. Cultivation in Vitro of Frozen and Desiccated Mouse Tumour Tissues. *Brit. Med. J.*, 1950, ii, 1134.

Robson, J. M. The Endocrine Control of the Breast. *Practitioner*, 1950, **165,** 497.

Rushton, Martin A. Fibrous Dysplasia of Bone: Arrested Jaw Lesions. *Brit Dent. J.*, 1950, **89,** 185.

Symonds, Sir Charles. Refresher Course for General Practitioners: Management of the Epileptic. *Brit. Med. J.*, 1950, ii, 1047.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

Mr. W. Kelsey Fry has been co-opted to the Council to represent Dental Surgery in place of Professor R. V. Bradlaw (resigned).

PASS LIST

CONJOINT BOARD

Final Examination

October, 1950

Pathology

*W. V. Agnew
G. A. E. Baker
T. G. L. Bellis
R. J. O. Catlin
D. J. Cliffe
M. J. Craft
D. M. Devane
*J. W. Draper
R. D. P. Druitt
A. Ferrari
J. C. Gazet
N. Gee
H. Gold
J. W. Goodfellow
P. D. Harvey
J. Hurst
J. C. Jelleyman
G. M. Karpusheff
J. C. C. Kendall
P. J. Koblenzer
D. T. Lovell
K. G. P. MacKenzie
I. H. Maine
E. J. Masters
J. M. Medlock
P. M. J. O'Brien
P. O'Gorman
J. N. Pachmayr
S. A. C. Paget
J. Palmer
P. L. Pelmear
W. J. Pryn
P. J. Rademan
S. H. Richards
J. R. Robinson
G. C. Saint
A. Shotts
E. D. Sonnenfeld
M. A. Sorefan
A. G. Spooner
E. P. W. Tatford
T. G. Thomas
W. M. E. Tweed
L. Wallner
R. A. J. Webb
J. F. Woodford
I. J. P. Woodhouse

Medicine

*W. V. Agnew
D. B. Amos
J. H. Bailey
*J. A. C. Bamford
N. P. Bronsdon
*G. R. C. Deacon
*J. W. Draper
N. Gee
H. V. Hoyle
*H. N. St. John
*E. T. J. Jones
T. D. Kellaway
A. R. Phillips
*I. M. Sharpe
J. A. J. Smith
R. V. Steward
*I. B. Thomas

Surgery

*D. G. E. Alldridge
*D. F. C. Deacon
*G. R. C. Deacon
*J. F. A. Everson
*G. C. A. Holden
*J. M. Holden
*E. M. Hume
*P. H. Kendall
*K. E. Maclachlan
*H. F. Pile
*E. N. Plomer
P. J. Rademan
*J. H. Ratcliffe
*F. B. Sartory
*I. B. Thomas
J. A. Thornton
*F. H. Walker
P. J. Wardill
*A. V. Watts
R. A. J. Williams

Midwifery

*D. G. E. Alldridge
R. J. O. Catlin
J. R. Evans
A. Ferrari
H. Gold
J. L. Harrington
J. V. Jeffs
E. T. Johns
P. F. P. Lansdown
M. M. Lubel
*K. E. Maclachlan
D. B. Murray
E. M. Newton
P. L. Pelmear
*J. K. Price
A. Ross
*I. B. Thomas
Tun-Shwe
*F. H. Walker
*A. V. Watts
R. S. Wells

* Have completed the examination

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Final Examination

October, 1950

PART I. *Surgery*

K. Ballantyne
A. E. Bond
S. G. Brangwin
P. T. Burke
H. Carter
K. S. Chambers
H. D. Davis
J. G. G. Dixon
M. H. Ede
M. Ellis
W. D. P. Flynn
D. C. L. Grigsby
H. R. Harvey-Moffatt
R. F. Hodson
D. G. James
D. J. I. Jones
H. Jones
R. B. Jones
K. R. H. Lightburn
D. London
A. W. McCandlish
S. F. Mitchell
M. H. O'Connell
J. C. Petty
R. F. Poole
W. C. Porter
G. S. Rose
E. G. Searle
J. C. J. Sheppard
E. G. M. Stillwell
G. K. Taylor
D. W. Thomas
C. J. Walker
D. E. M. Warner
A. H. Whitaker
G. F. Willcox
A. E. Woods

PART II. *Dental Surgery*

J. D. Barker
D. W. Campbell
W. F. Dobson
A. N. du Plessis
P. A. Gardener
W. J. George
G. D. Gibb
H. E. H. Guiett
J. M. D. Grant
H. C. Hole
W. H. Legg
S. Morgan
P. Readings
W. J. A. Reed
V. G. Rice
P. J. Saville
R. Skaith
B. R. Venning
D. R. Whittington

APPOINTMENT

C. F. Hawkins, M.D., appointed Asst. Physician to the United Birmingham Hospitals.

CHANGES OF ADDRESS

C. Aldis, M.B., B.S., 4, Gordon House, 37, Welbeck Street, London, W.1. Tel.: Welbeck 1787.

K. R. Wallace, M.B., B.Chir., Flat 3, 90, Brondesbury Road, Kilburn, N.W.6. Tel.: Maida Vale 8553.

BIRTHS

CLARE.—On October 3rd, 1950, at Bushey Maternity Home, to Heather (née Campbell), wife of J. R. C. Clare—a daughter, Rosemary Christina.

HANCOCK.—On November 24th 1950 at Nelson Hospital, S.W.20, to Betty (née Christopherson,) wife of J. Gordon Hancock, B.D.S.—a brother (David William) for Susan and Jane.

DEATHS

CARLING.-On November 15th, 1950, William Carling, M.B., B.Ch., of Alton, Hants., in his 89th year.

VIVIAN.—On November 11th, 1950, Bessie Garfield Vivian, Matron, Joyce Green Hospital, at St. Ives, Cornwall. "Transit umbra lux permanet."

EDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1628 *16th December 1950* *Ninepence*

PASSIM

WRITING " Passim " is like throwing a boomerang at a distant mark. One can never tell whether it will hit its mark or only some nearby point. Worse still, if it should miss altogether the writer will probably be struck by its violent return. Though criticism is often made—and greatly welcomed—of what appears in these columns, none is so violent as that from our friends if they think we have " pulled our punches." We must constantly attack, deplore, regret or otherwise advert to some feature of medical life in order to live peaceably with our colleagues. It is therefore with some trepidation that we write this week on Christmas.

Of all the classifications dividing the country into two halves none is so final as that which marks the " Christmasophil " from his hated rival the " Christmasophobe." Not " Socialist or Conservative," " Light Blue " or " Dark Blue," no not even Max Beerbohms' " Hosts and Guests " provides so sharp a cleavage. Some camouflage their nature as decently as they can. But the black scowl, the loathing, on the face of the " phobe " is ill-concealed as he receives his first Christmas card—that summons to fritter his substance in futile postal greetings to all his friends. Matched only by the smug pride of the " phil " with a bottle peeping from his pocket and laden with parcels wrapped in decorated paper. " Not gifts at all," the " phobe " will observe ! " Merely an excuse to invade the privacy of other people's lives. At best, Greek gifts, or, more likely, a fuse which will shortly ignite an explosion of false jollification, and confounded heartiness." " But not Christmas at all," the " phil " will reply, " without holly, snow, mufflers, ale, turkey, and Christmas presents to mark the occasion." There is no middle course you will observe. One is either a " phil " or a " phobe." It is probably a matter of chromosomes.

We ourselves are a Christmasophil, but a slowly-acting one. In September Christmas seems a fearful, if remote, prospect. In November fear becomes resignation. We buy a few presents to quieten our conscience. In early December resignation becomes rearguard action. We sally forth, buy what we can without enthusiasm. But the years have taught us that two weeks more and our soul will have been taken from us and immersed in Christmas spirit. We shall be hailing our friends and worse still, our enemies ! We shall be celebrating with people we have never met before and addressing citizens in animated conversation whose faces are entirely strange. And, truth to tell, we shall enjoy it.

The Christmas spirit is as insidious as it is strong—insidious, compelling and entirely benevolent. Perhaps, and, here in conclusion changing to a different tenor, it is one of few strong humanizing influences still left to us in a bleak and sometimes inhuman world. Peace and goodwill in the world seem far off indeed, but so long as the significance of Christmas is remembered none can say that one day they will not yet advance both westward and eastward to the ends of the earth.

We congratulate Mr. Murray A. Falconer on his appointment as Surgeon to Guy's and Maudesley Neuro-Surgical Unit, and Dr. D. Stafford Clark on his appointment as Assistant Physician in the Department of Psychological Medicine.

Obituary

G. S. GRAHAM-SMITH, M.A., M.D., B.Ch., D.P.H., F.R.S.

A reprint by kind permission of "The Cambridge Review."

Graham-Smith entered Pembroke College from Clifton in 1894. He was placed in the first class in the Natural Sciences Tripos in 1897, and stayed up a fourth year to take Part II. He then went to Guy's Hospital and qualified in medicine in 1901. He returned to the University for the Long Vacation Term in order to learn some more about pathology, which appealed to him more than practice. He joined an advanced class which was given by Cobbett, who happened to be investigating an outbreak of diphtheria in the neighbourhood, so that particular class had the advantage of watching him at work. At the end of the course Cobbett asked Graham-Smith to go as his assistant to deal with a severe epidemic of diphtheria at Colchester, and he readily accepted. His first paper was a joint one with Cobbett on the measures taken to check that epidemic. In 1902 Cobbett secured the post of Bacteriologist to the Borough of Cambridge for Graham-Smith, a post which he held until 1924. At the same time Woodhead made him Demonstrator in Clinical Pathology to Addenbrooke's Hospital. He resigned this post in 1906 on being given a John Lucas Walker Studentship. In 1907 he was appointed Lecturer in Hygiene and became responsible for the bacteriology classes for public health students. The course covered two terms and 541 persons attended it between 1907 and 1933 when the Diploma of Hygiene was discontinued. Graham-Smith was an enthusiastic and stimulating teacher and he took great pains over the preparation of these classes. In 1923 the University recognised the "unselfish work he had done for many years in the Department of Hygiene" by appointing him Reader in Preventive Medicine. He had been elected F.R.S. in 1919 for his important contributions to our knowledge of the ways in which diseases are conveyed by insects and the part played by human carriers in certain epidemic diseases.

When the Diploma of Hygiene was discontinued, his teaching was limited to a course of lectures to Part II pathology students. He was an interesting lecturer and he aimed to show how the great discoveries in bacteriology had been made. His lectures were much appreciated by students, staff and visitors alike.

Because of the difficulty students find in realising the time relations of events, he had intended publishing a chronological summary of the history of bacteriology, giving short accounts of many of the important older observers, together with their portraits. He had collected numerous portraits for this purpose, which now hang on the walls of the corridor near his room. He had also collected prints, photographs, and maps and made many diagrams and charts illustrating the development of the various departments of the Old and New Museums sites. These hang on the walls of the main staircase of the Department of Pathology, and are worthy of a visit by anyone interested in the rise of the scientific departments in Cambridge.

He published more than sixty scientific communications on general bacteriology, diphtheria, precipitins, protozoal diseases, flies and disease, animal diseases, etc., and for the last ten years was editor of the *Journal of Hygiene*. He had been Assessor to the Regius Professor of Physics and Secretary of the Faculty Board of Medicine.

Graham-Smith was cricket captain at Pembroke and Guy's. He was also a good rugby player, and later on, when he took up golf, he became a well known first class amateur golfer: he was a foundation member of the Gog Magog Golf Club. He had a very wide range of interests, and approached any problem with almost boyish enthusiasm. He was always ready to give his help to anyone who asked for it, and many past and present members of the Department of Pathology recognise the debt they owe to him. He was an inveterate cigarette smoker. He never seemed to feel the cold, and in the depths of winter he could be seen cycling steadily along Hills Road with a cloth cap pulled over his forehead, and wearing neither overcoat nor gloves; although occasionally he condescended to mittens.

R.W.

On the Choice and Use of Books

OF the part which books play or should play in the advancement of medical learning books themselves could be written. Their influence might be discussed in its broadest relationships or more particularly, as here, in respect of the proper equipment of the student mind. We should, in either case, find general agreement as to their indispensability, but in the pursuit of a profession and a study so practical as Medicine the most " bookish " among us must needs confess that books are generally less valuable as a source of knowledge than experience garnered at first hand. In Osler's phrase, "to study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all." Medical books are indeed the charts, the pilots or the shipmates of our adventures after knowledge, and as such they should chiefly be used.

There are times when the chill shadow of the examination hall compels the best of us to attempt a heavy daily dose of the larger text-books, to the end (as we fondly hope) that we may be found wanting in nothing which the ingenuity of the examiner might contrive for our undoing. Probably there are few of us who have consistently shunned the subtle temptation of the shorter cram-books in those last hours of pre-examinational anxiety-neurosis, but do we not in saner moments of accomplishment look back upon our employment of these " aids " with a twinge of shame and generally with a realisation that they were not commendable works or the cause of our success ? Plodding through text-books and mnemonic exercises are not, in fact, to be dignified as " reading " or " study," both of which are pursuits undertaken for intellectual pleasure and profit. Not until the medical student, through natural bent or timely direction or the relief of mind which follows qualification, becomes for the first time a student of medicine (so to remain for the rest of his days), does he enter upon the full enjoyment of his special literature.

In considering within the compass of a brief essay " the choice and use " of medical books, let us seek how we may acquire and employ them as friends and collaborators and forget that at one time or another in our lives we have submitted to them as task-masters. We must clearly allow for wide variations in the matter of taste in friendships (one contemporary of mine swore that he preferred Cunningham's " Anatomy " to any novel and carried it always in his greatcoat pocket), but certain hints with regard to good company may not be amiss.

As we would divide our friends, so may we divide our books into categories. There are the necessary daily companions of our youthful period, often with pleasant and useful contacts to be renewed from time to time in later years. Among these we would include the recognised text-books, our Taylor's or Price's " Medicine," their compeers in surgery and obstetrics, MacCallum's " Pathology," and one of the better handbooks on " Clinical Methods." There are also a few seniors in this group of friends to whom we turn, with the respect due to years, for words of wisdom, fine descriptions and the fruits of old experience. Fagge's " Principles and Practice," Trousseau's " Clinique Medicale," and the earlier editions of " Osler " are very worthy of a place on our shelves and will never be put " on the shelf " in the more vulgar sense. We shall discover other more rare and intimate friendships, both with young and old, to be won by degrees from among the collected lectures, the volumes which deal with special subjects, and the monographs. " The true worker does not want text-books ; he looks to journal literature and monographs . . ." says Osler. Glancing at random through my book case, I recognise with affection as members of this class Paget's " Clinical Lectures and Essays," Jonathan Hutchinson's " Pedigree of Disease," Gower's " Border-land of Epilepsy," Wilks' " Diseases of the Nervous System," Mackenzie's " Diseases of the Heart " and " Symptoms and their Interpretation," Cabot's " Facts on the Heart," Pavlov's " Conditioned Reflexes," Hurst's " Sensibility of the Alimentary Canal," Carlson's " Hunger in Health and Disease," Moynihan's " Duodenal Ulcer," and Still's " Diseases of Children." The list might be much extended, but a special place must be reserved for one book which every Guy's man's library should boast. I refer to Hilton's " Rest and Pain," a volume replete with wisdom and observation most genuine, of sustained interest

throughout and a constant inspiration to the thoughtful correlation of clinical, anatomical and physiological inquiry. First published in 1863, it was revised four times and has passed through no less than ten re-printings. G. Bell & Sons publish it at a very modest figure, but it is worth its weight in gold.

There is a further group of worthies, old in time and ripe with honour, chiefly to be found in the libraries and private hands, but still available with search and patience from the secondhand booksellers. In this group Heberden's " Commentaries on the History and Cure of Diseases " is an old intimate of mine. Among the well-known publications of the New Sydenham Society are to be found Addison's " Works," Bright's " Clinical Memoirs on Abdominal Tumours," and a " Collection of the Published Writings of Sir William Gull," to give the Guy's men pride of place, and others of enduring merit like Stokes' " Diseases of the Chest."

For the opulent the " first edition " habit may open the door to still rarer friendships, but in these hard times and generally in youth the door must remain closed.

Lastly we come to a circle of friends who dwell in the border-lands of medicine. I mean the books concerned with medical history, biography, literature and philosophy. Michael Foster's " History of Physiology " and, of recent date, Fulton's " Selected Readings in the History of Physiology," Osler's " Alabama Student " and " Aequanimita's,' Wilks and Bettany's " History of Guy's Hospital " and Wilks' " Biographical Reminiscences " are of this number, and we should add a few biographies such as Stephen Paget's " John Hunter " and D'Arcy Power's " William Harvey."

Harvey's " Circulation of the Blood " and Sir Thomas Browne's " Religio Medici," of the same epoch and rich value but vastly different subject and character, can both be obtained in the pocket Everyman edition, and no student of medicine or lover of English literature should be without them. The works of Hippocrates are now published by the Loeb Classical Library. Without the Oath, the Aphorisms, and the clinical case-reports, no man's medical education is quite complete. Neither " old books " nor " the nucleus of a medical library " was intended as the subject of this essay, but I could not refrain from enumerating a few of the more shining or classic sources of knowledge and delight. Who chooses friendships from among these and their like will inevitably become a wiser and happier a man.

But we have yet to consider the selection of our new, young friends from that constant procession of books which issues daily from the press, and I dare not think what the publishers will say of the *Gazette* if it sets out to encourage its readers to go on the prowl round the second-hand bookstalls with their minds shut to the blandishments of the new reviews. By all means read the reviews assiduously, but remember that medical literature to-day, like every other branch of literature, is over-burdened with bad books, and neither time nor money are so much at the disposal of the student of medicine that he can afford to be lavish with either unless there be promise of a good return. Therefore be occasional and wary in your purchases, pay more attention to the repute of authors than the attraction of titles, and let your teachers and your senior colleagues guide you in your expenditure. I would not for a moment have it thought that no good books are to be found in new covers. Each year I add to my store, and each year I have to resist many temptations. For the student and the busy man in practice series such as Churchill's " Recent Advances " have a definite value ; new text-books and new editions of text-books must often be carefully considered on their merits ; a few important monographs must at once be bought ; but, although it be hoary advice, you should still be cautious in the acceptance of new friends.

The best way to use text-books is clearly in close conjunction with clinical work. Each disease seen and discussed at the bedside or in Out-patients, whether the patient be yours or a fellow clerk's should be studied again as soon as possible with " the book of the words," and how much more refreshing this method is than the aimless perusal of chapters often having but little bearing on anything you have yet seen or heard. If this simple plan is followed it is surprising what large tracts of medicine can be covered in six months, and visual memory, constantly co-operating with sound descriptions, will gradually

plant in your minds those images upon which future diagnostic achievement so largely depends. When two descriptions, an old and a new one, or a clinical and a pathological one, are available in important diseases such as pneumonia or typhoid fever, by all means study both. The modern text-books may be more complete, more attentive to the details of accessory investigation, but few of them can compete with Fagge and Osler in the matter of clinical portraiture. When interest is especially stirred in a particular case or an intriguing pathology then is the time to discover from your teachers whether there is any important monograph or symposium to be borrowed from the library or, perhaps, purchased and treasured as a private investment.

The " classics " and " old friends " in each of our categories are rather for the bedside, the week-end and the morning train. They are the disciples of faith and pride and thought in medicine ; they help to cultivate that philosophic outlook, and sometimes that philosophic doubt, without which no student of medicine can hope to become a balanced physician.

Books, whether valuable or otherwise by common computation, are greatly to be cared for. There is abiding pleasure in the gradual acquisition of a good library, whether large or small, and in keeping it well arranged. Many of the books on your shelves will be read once only, or possibly never, from cover to cover, for the doctor's life is all too full, but again and again they will be found handy for reference or refreshment, and by degrees nonentities become acquaintances, acquaintances friends, and friends intimates. The very backs of them take on a friendly look when you come home tired, and, if only your wife can persuade the spring-cleaning fiends of the sanctity of your shelves, you will come to know just where to stretch your hand for one or other of the good companions of your youth, maturity and advancing years.

Finally, with books as with money, " neither a borrower nor a lender be," or, if you fail (with most of us) to obey this precept to the letter, adopt the simple system of keeping a small note-book in which you may enter, " Borrowed by Jones on such-and-such a date, my Everyman's Edition of Harvey's ' Circulation,' " or " Borrowed from Smith on April 1st, So-and-so's ' Aids to Medicine.' " With this expedient guilt may easily be brought to book, your colleagues will respect you, and the gaps in your shelves will not long remain unfilled. J.A.R.

(This article was written in 1933 *by Professor J. A. Ryle and appeared in the Gazette at that time. A writer asked that it should reappear, and in view of its lasting value we are pleased to reprint it.—Ed.).*

Students' Union Christmas Ball

" Last moon beheld them, full of lusty life."

Publicity beforehand was by no means lacking and that must have accounted in some measure for the tremendous crowd which fought its way round the Paddington Hall last Saturday on the occasion of the Students' Union Christmas Ball. The venue, possibly, was not the ideal choice, for notwithstanding the excellence of the wooden floor enclosing the erstwhile swimming bath, there still remained a disconcerting gutter at the periphery, a trap indeed to all but the particularly wary. The lighting, moreover, was notably dim, whether by intention or design was not certain, and the band struggled furiously to make itself heard above the general clamour.

Judged by attendance, enthusiasm and vigour, this could have been rated a most successful occasion and such, after all, must be the criteria for so many student activities. On the other hand, if the Students' Union really intends to grace its rhythmical features with the title of " Ball " then, surely, a certain nobility of place and conduct is to be desired, so that there may be opportunity for a stately measure or two as well, or in place of, the furious and uninhibited antics of the apparently predominant social extroverts.

Richard Bright—A Bio-Bibliography

By WILLIAM HILL, A.L.A.

(Continued).

18

MACKENZIE (SIR GEORGE).

Travels in the Island of Iceland.

4to., Edinburgh, Allan & Co., 1811.

NOTE.—Bright contributed the chapters on the plants and animals of the island as well as several sketches which were reproduced.

19

Dissertations by eminent members of the Royal Medical Society.

4to., Edinburgh, Douglas, 1892.

NOTE.—Bright's paper on Gangrene was printed in this collection. Not a very interesting paper except that he mentions his belief that fresh air and cleanliness, especially of the hands would cut down the incidence of infection in hospitals. The original paper was read before the Society in 1813.

20

With ADDISON (THOMAS).

Elements of the Practice of Medicine.

613p., 8vo., London, Longmans, etc., 1839.

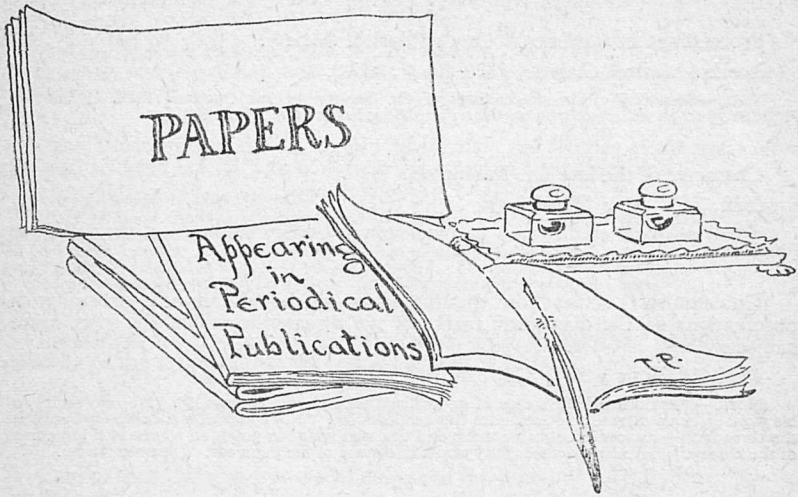
NOTE.—Only one volume of this work was ever published. It contains the first real, description of appendicitis.

21

Review of the above.

Lancet, 1838-39, 36, 620.

NOTE.—A bad notice as might be expected as relations between Guy's and the *Lancet* were very tense. "We cannot help expressing our regret that so defective a production should have issued from such a source."



22

On the strata in the neighbourhood of Bristol.

Transactions of the Geological Society, 1817, **4** *; 193-205,*

23

On the hills of Badacson, Sziliget, etc., in Hungary.

Ibid., 1821, **5** *; 4-8.*

NOTE.—These two papers were read before the Geological Society in 1811 and 1818 and were the direct result of his interest in geology fostered by Babington.

24

A case of traumatic tetanus.

Lancet, 1825-26, **9** *; 268.*

NOTE.—An account of a case which was seen by Bright together with Astley Cooper and Morgan.

25

A singular case.

Ibid., 653.

NOTE.—A case of syringomyelia.

26

Contagious nature of erysipelis.

Ibid., 717.

NOTE.—A report of one of Bright's cases.

27

Guy's Hospital Anniversary Dinner.

Ibid., 1826-27, **10** *; 221-222.*

NOTE.—An account of the Anniversary Dinner. It includes the report of a speech by Bright in which he speaks of the pride he felt in being a physician at Guy's.

28

A case of unusually profuse perspiration with analysis of the fluid by J. Bostock, M.D.

Medico-Chirurgical Transactions, 1828, **14** *; 433-436.*

NOTE.—Bright's contribution takes the form of a letter which was read as part of the paper by Bostock, 11th March, 1828.

29

Proceedings of Societies. Guy's Physical Society.

London Medical Gazette, 1829-30, 5 ; 91-2.

NOTE.—Summary of the proceedings of the Society on 3rd October, 1829. Bright as President gave an address outlining the new rules and objects of the Society.

30

Character of the late Dr. Babington.

Ibid., 1833, **12** *; 264-5.*

NOTE.—A eulogy on his friend and tutor delivered before his lecture at the College of Physicians.

31

Goulstonian Lectures on the functions of the abdominal viscera with observations on the diagnostic marks of the diseases to which the viscera are subject.

Ibid., 1833, **12** *; 281, 312, 345, 378, 411.*

NOTE.—Mentions briefly a case of generalised scleroderma (page 415). He also refers to his work on renal disease and concludes this section with, "My conviction is complete between the three facts—anascara, coaguable urine and diseased function going on to diseased structure of the kidney." He also discusses fatty stools in disease of the pancreas. (See next item).

32

Cases and observations connected with diseases of the pancreas and duodenum.

Medico-Chirurgical Transactions, 1833, **18** *; 1-56.*

NOTE.—This paper was read before the last but not published until after. He describes pancreatic diabetes and pancreatic steatorrhœa. "A peculiar condition of 'alvine' evacuation, a portion, more or less considerable assuming the character of an oily substance resembling fat which either passes separately from the bowels or soon divides itself from the general mass . . ." By careful reasoning he shows that the common feature in all cases is disease of the pancreas.

33

The same.

London Medical Gazette, 1833, **11** *; 224.*

NOTE.—An abstract of the above paper (No. 32).

34

The same.

Lancet, 1832-33, i ; 396.

NOTE.—An abstract of No. 32.

35

Cases and observations illustrative of diagnosis when adhesions have taken place in the peritoneum, with remarks upon some other morbid changes of that membrane.

Medico-Chirurgical Transactions, 1835, **19** *; 176-216.*

NOTE.—A paper read on January 27th, 1835. A good and possibly the first description of chronic proliferative peritonitis (Hale-White). Reprinted as No. 9.

36

Diagnostic symptoms in peritonitis.

London Medical Gazette, 1834-35, i ; 697.

NOTE.—Abstract of the above paper (No. 35).

37

Observations on the reatment of fever. Case of simple fever, protracted by irritation of the bowels, and attended by relapse.

Guy's Hospital Reports, 1836, **1** *; 1-8.*

NOTE.—A case history and comment. In the latter Bright revises his views on the treatment of fever. "It is a duty incumbent upon the physician, who has ventured at any time to lay before the profession his ideas of disease and its treatment, to review from time to time his published opinions, that he may see how far subsequent experience has borne out, or modified his former impressions . . ."

38

The same.

London Medical Gazette, 1835-36, i ; 576.

NOTE.—A summary and comment on the above. The author deals severely with Bright for changing his views.

39

Cases illustrative of the effects produced when the arteries of the brain are diseased selected chiefly with a view to diagnosis in such affections.

Guy's Hospital Reports, 1836, **1** *; 9-32.*

NOTE.—Shows that the position of the lesion can be determined by the symptoms. He quotes nine cases to show that " by thus arriving gradually at the probable causes of symptoms, we may form a correct diagnosis and be enabled to direct our remedies more decidedly to the grand object to be attained—that of curing disease." The paper also shows that he was aware of the importance from a diagnostic viewpoint of the retention of consciousness.

40

Permanent contraction of all extremities with numberless cartilaginous deposits in the arachnoid of the spinal marrow.

Ibid., 33-35.

NOTE.—Case and post mortem report forming part of the above paper.

41

Case of fatal epilepsy from local disease of the brain.

Ibid., 36-40.

NOTE.—This again forms part of No. 39. It contains the first description of unilateral (Jacksonian) epilepsy.

42

Case of tetanus in which quinine and stimulants were administered very extensively with success.

Ibid., 111-118.

NOTE.—A case of tetanus in a parchment worker aged 38 who was discharged from hospital after five weeks of treatment.

43

Cases and observations illustrative of renal disease accompanied with the secretion of albuminous urine.

Ibid., 338-379.

NOTE.—Case histories of eleven cases with a summary of his work on renal disease up to that time. Includes a fine description of the course of the disease and he notes the effects on the brain. This paper has been reprinted at various times and under various conditions.

44

The same.

London Medical Gazette, 1835-36, **18** *; 73-74.*

NOTE.—Summary of the above paper.

45

Tabular view of the morbid appearances in 100 cases connected with albuminous urine, with observations.

Guy's Hospital Reports, 1836, **1** *; 380-400.*

NOTE.—This is a continuation of No. 43 and arranges in tabular form his findings in 100 cases of renal disease. The first thirty-three appeared in the Reports of Medical Cases and the others were later cases. He concludes with comments on the tables.

46

An account of a remarkable misplacement of the stomach.

Ibid., 598-603, 1pl.

NOTE.—The postmortem findings in a case of congenitally short œsophagus and diaphramic hernia.

47

Observations on jaundice, more particularly on that form of the disease which accompanies the diffused inflammation of the substance of the liver.

Ibid., 604-637, 2pl.

NOTE.—The original description of acute yellow atrophy of the liver. He fails to distinguish between acute yellow atrophy and suppurative pylephlebitis (Hale-White). There is an appendix by Dr. Rees on the congretions found in the uterus of one of the cases. This is on page 655.

48

Observations on the situation and structure of malignant disease of the liver.

Ibid., 638-648, 4pl.

NOTE.—Includes a good description of the manner in which growths invade the liver.

49

Retrospective address to the Medical and Chirurgical Society.

Lancet, 1837-38, i ; 870.

NOTE.—Summary of his speech as President on the occasion of the anniversary meeting, 1st March, 1838.

50

Cases and observations illustrative of diagnosis when tumours are situated at the base of the brain.

Guy's Hospital Reports, 1837, 2 ; 279-310.

NOTE.—Contains two well described cases of aphasia. This paper shows that he was one of the first exponents of the theory of cerebral localisation.

51

Observations on abdominal tumours and imtumescence ; illustrated by some cases of acephalocyst hydatids.

Ibid., 432-492, 8pl.

NOTE.—This is the first of his papers on abdominal tumours. Thayer considers that this description of the daughter cysts developing is the first in medical literature. For this investigation he made use of the microscope.

52

Observations on abdominal tumours and imtumescence ; illustrated by cases of ovarian disease.

Ibid., 1838, 3 ; 179-286. 10pl.

NOTE.—Continues his study of abdominal tumours.

53

Observations on abdominal tumours and imtumescence ; illustrated by cases of diseases of the spleen. With remarks on the general pathology of that viscus.

Ibid., 401-460. 6pl.

NOTE.—Contains on page 437 a description of Hodgkin's Disease.

54

Observations on abdominal tumours and imtumescence ; illustrated by cases of renal disease.

Ibid., 1839, 4 ; 208-264. 9pl.

NOTE.—12 cases well described.

55

Cases of spadmodic disease accompanying affections of the pericardium.

Medico-Chirurgical Transactions, 1839, 22 ; 1-19.

NOTE.—Read on 13th November, 1838. Shows that pericarditis may be accompanied with chorea. Stresses that this connection was first taught at Guy's (see Osler, On Chorea, 1894, p.5). The first to describe a mitral murmour in chorea (Wilks).

56

The same.

London Medical Gazette, 1838-39, i ; 271-272.

NOTE.—Summary of the above paper.

57

Internal congretion of phosphate of lime.

Ibid., 1939-40, ii ; 76.

NOTE.—Report of a calculus shown at the meeting of the Royal Medical and Chirurgical Society on 24th March, 1840.

58

Cases and observations illustrative of renal disease accompanied with the secretion of albuminous urine. Memoir the second.

Guy's Hospital Reports, 1840, 5 ; 101-161.

NOTE.—The second paper on renal disease quoting 24 cases with a view of establishing the success of his treatment.

59

Observations of abdominal tumours and imtumescence ; illustrated by cases of diseased liver.

Ibid., 298-396. 8pl.

NOTE.—The last of his papers on abdominal tumours.

60

Letter concerning the pathology of the kidney.

London Medical Gazette, 1841-42, 29 ; 707.

NOTE.—A letter announcing that he was engaged on a book on the pathology of the kidney. This apparently was never published for no trace of it can be found. The same year, however, saw the publication of a work on this subject by his pupil, Robinson, and this contains in all probability much that is Bright's.

61

Account of the observations made under the superintendence of Dr. Bright on patients whose urine was albuminous.

Guy's Hospital Reports, 1843, n.s,1 ; 189-316. 10pl.

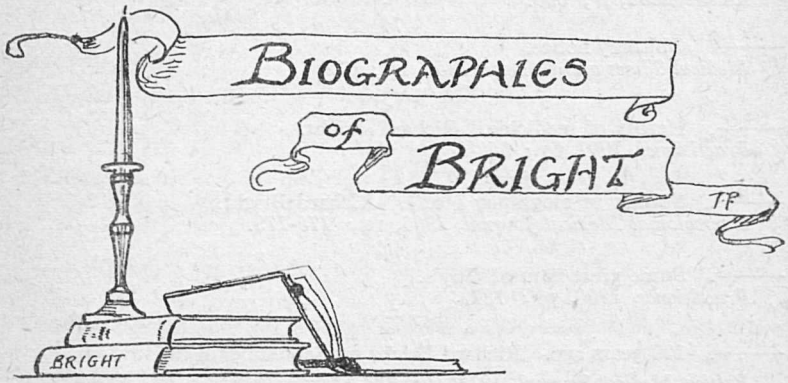
NOTE.—This was the report on the investigation carried out in the Clinical Wards of Guy's. Bright wrote the preface only but his influence is apparent throughout the rest of the paper which was written by Barlow and Rees.

62

On gangrene.

Guy's Hospital Reports, 1928, 78 ; 23-34.

NOTE.—This is a reprint of his paper read to the Royal Medical Society of Edinburgh. (See No. 19).



Most works on the history of medicine contain accounts of Bright and his writings varying in length from a few lines to a few pages. In the section that follows only those which contain a definite section or chapter have been included. The arrangement is alphabetical according to authors with anonymous works listed under Bright.

63

BARKLEY, A. H.
Kentucky Medical Journal, 1926, 24 ; 337.

64

BARLOW, G. H.
Eulogium on Dr. Bright.
Lancet, 1843-44, i ; 244.

65

———. Introduction to the New Sydenham Society's reprint of his papers on Abdominal Tumours.
See No. 15 for full details.

66

BEILIN, A.
Richard Bright, 1789-1858; distinguished pioneer, physician and investigator.
Hygeia, 1937, **15**; *151-152.*

67

BRIGHT, R.
F.R.C.P.
London Medical Gazette, 1837, **10**; *496.*

68

———. Right of students.
Lancet, 1837-38, i; *95.*

69

———. Medical portraits; the lecturers at Guy's and St. Thomas's Hospitals.
Medical Times, 1840, ii; *133-134.*

70

———. Pencillings of eminent medical men. Dr. Bright.
Ibid., 1843-44, **9**; *94.*

71

———. Dr. Richard Bright. Honorary degrees at Oxford.
Lancet, 1853, i; *543.*

72

———. Obituary notice.
Edinburgh Medical Journal, 1859, **4**; *680-2.*

73

———. Obituary notice.
Lancet, 1858, ii; *665.*

74

———. Obituary notice.
Medical Times and Gazette, 1858, **17**; *632.*

75

———. Heroes of medicine. Richard Bright.
Practitioner, 1901, **67**; *652-655.*

76

———. Studies in biography No. 1. Richard Bright.
Intercolonial Medical Journal, 1905, **10**; *175-179.*

77

———. Some great men of Guy's.
Practitioner, 1906, **76**; *727.*

78

———. 100 years ago. Richard Bright on September 13th, 1813.
British Medical Journal, 1913, ii; *683-685.*

79

———. *Clinical Medicine and Surgery, 1929*, **36**; *75.*

80

———. *Colorado Medicine, 1931*, **28**; *512.*

81

———. *New England Journal of Medicine, 1936*, **214**; *437-438.*

82

BURDICK, A. S.
Biographical notice.
Medical Standard, 1903, **26**; *514.*

83

CAVE, H. A.
Contributions to the history of narcolepsy (case described by Richard Bright in 1836).
Archives of Neurology and Psychiatry, 1937, **38** ; *136-139.*

84

CHANCE, B.
An ophthalmologist's appreciation.
Annals of Medical History, 1927, **9** ; *332-336.*

85

———. Richard Bright, traveller and artist. With illustrations.
Bulletin of the History of Medicine, 1940, **8** ; *909-933.*

86

CHRISTIAN, H. A.
Kidney disease as described by Richard Bright in the light of knowledge of a century later.
Annals of Medical History, 1927, **9** ; *337-346.*

87

EASON, Sir H. L.
The situation of the clinical wards at Guy's Hospital in the time of Richard Bright.
Guy's Hospital Reports, 1927, **77** ; *302-306.*

88

GARRISON, F. H.
Richard Bright's travels in Lower Hungary, a physician's holiday.
John Hopkins Hospital Bulletin, 1912, **23** ; *173-182.*

89

———. The Same.
Guy's Hospital Gazette, 1912, **26** ; *371*

NOTE.—No. 88 is a very good article on Bright's travels with many quotations from his work and several illustrations. No. 89 is a very brief abstract of No. 88.

90

HACKER, W. L.
Albany Medical Annals. 1908, **29** ; *431-433.*

91

HALE-WHITE, Sir W.
Richard Bright and his discovery of the disease bearing his name.
Guy's Hospital Reports, 1921, **71** ; *1-20*

92

———. Bright's obversations other than those on renal disease.
Ibid., 143- 157.

NOTE.—Both the above two papers are admirable studies of Bright's work and teaching.

93

———. Bright's contributions to medicine.
Guy's Hospital Gazette, 1921, **35** ; *181-188.*

NOTE.—This paper covers much the same ground as the previous two.

94

———. The Centenary of the discovery of Bright's Disease.
Lancet, 1925, ii ; 769-771.

95

———. Richard Bright and his work.
16p., 2pl., 8vo., London, Guy's Hospital Reports, 1927.

NOTE.—Issued as a supplement to the Guy's Hospital Reports, July, 1927. It is a shortened version of Sir William's two papers in 1921 (Nos. 91 and 92).

96

———. Bright's two earliest medical papers.

Guy's Hospital Reports, 1928, **78** *; 18-34.*

NOTE.—This is an introduction to the reprint of Bright's paper on Gangrene. His thesis was to have been reproduced at the same time but there was no room (see No. 2). This paper also contains some important information on Bright's birth.

97

———. Great doctors of the nineteenth century.

viii, 325p., 8vo., London, Arnold, 1935.

NOTE.—A biography of Bright forms one chapter of Sir Williams' popular book (pages 63-84).

98

HURST, Sir Arthur.

Richard Bright.

Medical Press and Circular, 1935, **191** *; 292-3.*

NOTE.—A very good short article. Reprinted as No. 113.

99

KABANOV, N. A.

Bright and his teaching.

Klinicheskaya Meditsina, Moscow, 1928, **15** *; 1017-1029.*

100

LASEGUE, C.

In Etudes Medicine, Paris, Asselin et Cie, 1884, Vol. 1, pp. 60-79.

101

———. *Archives General de Medicin, 1859, i ; 257-274.*

102

LICHTY, J. A.

Life and times (1789-1858) of Richard Bright.

Clifton Medical Bulletin, 1928, **14** *; 50-54.*

103

MAJOR, R. A.

Classic descriptions of disease with biographical sketches of the authors.

8vo., Springfield, Thomas. 1st edition, 1932, p.493.

104

———. The same.

2nd edition, 1939,p.580.

105

———. The same.

3rd edition, 1945, p.534.

NOTE.—The above three references contain a brief biography with illustrative passages from the Reports of Medical Cases, vol. 1. All have the place of birth as "Briston" instead of "Bristol."

106

MOORE, Sir Norman, and PAGET, S.

Royal Medical and Chirurgical Society of London. Centenary, 1805-1905

337p., 9pl., 8vo., Aberdeen University Press, 1905.

NOTE.—Short article on pp.242-50 dealing mainly with his works and his relations with the Society.

107

MUNK, W.

Roll of the Royal College of Physicians of London.

3 vols., 8vo., London, 1878.

NOTE.—Bright is dealt with in vol. 3, p. 155.

120

———. Richard Bright, his early travels.
British Medical Journal, 1927, ii ; 67.
NOTE.—Interesting account of his travels in Iceland and Hungary.

OPPENHEIMER, R. H. 108

Thomas Addison and Richard Bright, contemporaries.
Medical Journal and Record, 1927, **126** *; 107.*

OSMAN, A. A. 109

Studies on Bright's Disease No. vii. Histological sections from kidneys of three cases of Bright's Disease originally described by Dr. Bright.

Guy's Hospital Reports, 1933, **83** *; 185.*
NOTE.—Description of the histological examination of three specimens in the Gordon Museum originally prepared by Bright. Also reprinted with amendments in No. 17.

PALMIERI, V. M. 110

Riforma Medicina, 1928, **44** *; 70.*

PAYNE, J. F. 111

Article in the Dictionary of National Biography, 1886, Vol. 6, pp. 334–7.

PETTIGREW, T. J. 112

Medical Portrait Gallery.
4 vols., 4to., London, Fisher [1840].
NOTE.—Bright is dealt with in vol. 2 section 4. It is a very good biography by one who knew him personally but does not deal with the last twenty years of his life.

POWER, Sir D'A., *Editor.* 113

British Masters of Medicine.
xvi, 242p., 33pl., 8vo., London, Medical Press, 1936.
NOTE.—A reprint of Hurst's article (No. 98) pp. 79-83.

114

ROCHESTER, De L.

Richard Bright of Guy's Hospital.
Annals of Medical History, 1923, **5** *; 301-5.*
NOTE.—More concerned with the background than the man.

115

THAYER, W. S.

Richard Bright. The Bright Oration delivered at Guy's Hospital of July 8th, 1927, on the occasion of the Centenary of the publication of the first volume of Bright's Reports of Medical Cases.

Guy's Hospital Reports, 1927, **77** *; 253-301.*
NOTE.—This is the best account of Bright and his work yet written. The bibliography is especially good.

———. Bright Oration. 116

Lancet, 1927, ii ; 133-135.
NOTE.—A shortened version of the above.

117

———. The man and physician.

Guy's Hospital Gazette, 1927, **41** *; 308-318.*
NOTE.—A shortened version of No. 115.

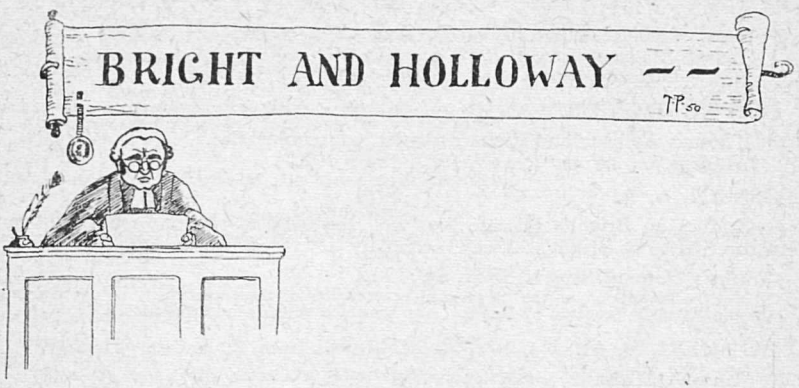
118

WILKS, Sir S., and BETTANY, G. T.

Biographical history of Guy's Hospital.
London, Ward Lock, 1892.
NOTE.—A biography of Bright appears on pp. 87-95.

WILLIAMSON, R. T. 119

English Physicians of the past.
Newcastle, Reid & Co., 1923.
NOTE.—A short account of Bright appears on pp. 87–95.



121

Lancet, 1846, i ; 305-307.

122

Ibid., 498-499.

123

Ibid., 606-609.

124

Ibid., 694.

125

Ibid., ii ; 383.

126

Ibid., 491.

127

The Senex.

Ibid., 598.

128

Case of Clark *v.* Freeman—quack medicines.
London Medical Gazette, 1848, **6** *; 239-241.*

129

Dr. Bright, strictures on certain justifications of his apathy with regard to the quack Holloway.
Lancet, 1848, i ; 215-216.

130

Association Medical Journal, 1853, i ; 520.

MISATTRIBUTED WORKS.

131

Practical observations on the nature and symptoms of dropsy in all its forms ; in which a new and more correct plan of treatment is proposed and explained, with several cases illustrative of its success.

V.6, 66p., 8vo., London, H. Heatherington, 1839.

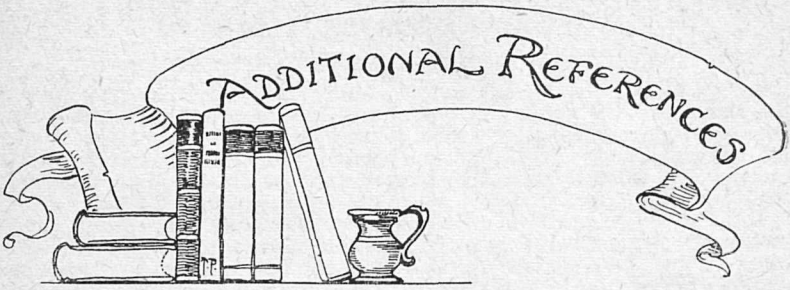
NOTE.—This is by Richard Bright of Ely Place but attributed to Bright by the Surgeon-General's Catalogue. For further details see the section on Bright and Holloway.

MS. WORKS.

132

The Clavated nail and finger which is generally supposed to be indicative of a strumous diathesis.

NOTE.— Exists as a manuscript abstract in the Minutes of the Guy's Physical Society for October 5th, 1839.



In addition to the references cited in the Bibliography the following works have been consulted at various times during the compilation of this work.

BAILEY, J. B.! Diary of a Resurrectionist, 1811-1812. Swan Sonnenschein, London, 1896.

CASTIGLIONI, A. History of Medicine, 2nd edn., Knopf, New York, 1947.

DICTIONARY OF NATIONAL BIOGRAPHY. Articles on Mackenzie, Rees, Bostock and Barlow.

FELTOE, C. L. Memorials of John Flint South. Murray, London, 1884.

GARRISON, F. H. Introduction to the History of Medicine, 3rd edn., Saunders, Philadelphia, 1924.

——— & MORTON, L. T. Medical Bibliography. Grafton, London, 1943.

GRANT, Sir A. Story of the University of Edinburgh. 2 vols. Longmans, London, 1884.

GUTHRIE, D. History of Medicine. Nelson, London, 1945.

HALE-WHITE, Sir W. Guy's Hospital Gazette, 1925, Bicentenary Number, p.13.

HOLLAND, Sir H. Recollections of Past Life. Appleton, New York, 1872.

JOHNSTON, T. B. Guy's Hospital Gazette, 1925, Bicentenary Number, p.64.

KELLY, E. C. Encyclopedia of Medical Sources. Williams and Wilkins, Baltimore, 1948.

LLOYD, W. 100 years of Medicine. Duckworth, London, 1936.

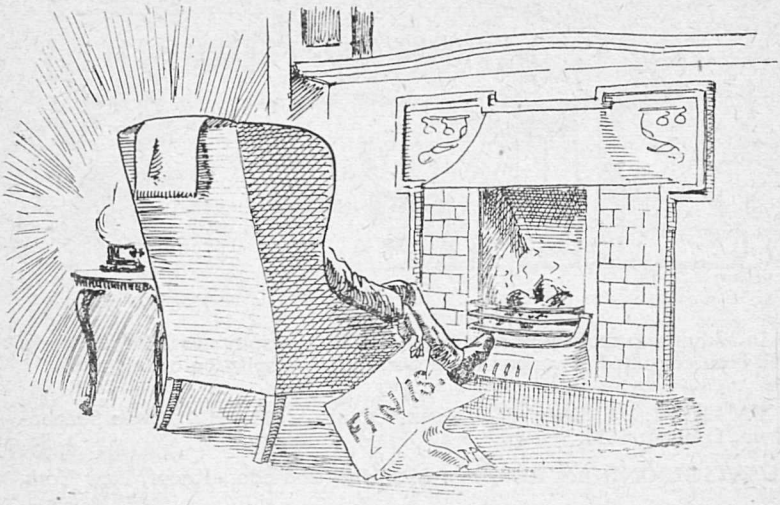
London County Council Survey of London, vol. 22, Bankside, 1950.

PARSONS, Sir F. G. History of St. Thomas's Hospital 3 vols., Methuen, London, 1934.

POOR LAW COMMISSION. The Sanitary Condition of the Labouring Population of Great Britain, London, 1842.

TREVELYAN, G. M. Social History of England.

WILKS, Sir S. Biographical Reminiscences. Adlard, London, 1911.



I wish to acknowledge with great pleasure my indebtedness to Mr. W. J. Hobby, F.L.A., and the Staff of the Minet Public Library for help in obtaining several of Bright's works which are not in the Wills Library; to Mr. Charles King, A.L.A., and the Staff of Devon County Reference Library for making an intensive search through county records for details of Bright's second marriage and to Mr. J. L. Thornton, A.L.A., of St. Bartholomew's Hospital Medical School Library for loaning periodicals. Lastly to my wife for her help and advice and for her forbearance when piles of slips, cards and other bibliographical essentials brought havoc into a well-ordered household.

Correspondence

The Landon Children's Tea Party

SIR,—The Landon Children's Tea Party will be held in the Out-Patient Department this year at 3.30 p.m. on Saturday, December 23rd, at which 200 children will be entertained.

In the past it has been customary to appeal to business firms in the neighbourhood for subscriptions towards the cost of this annual event. Under the present regime, hospitals are not allowed to appeal for funds, but there are many members of the Hospital Staff who have helped this cause in the past, and I have no doubt would like to continue to do so.

This tea party has been an annual event since 1897 and any member of the Staff will be welcome who cares to come and see the entertainment in progress.

Yours, etc.,

PHYLLIS E. BIRD,

Guy's Hospital, S.E.1. *Hon. Secretary, Landon Tea Fund.*

The Pupils' Physical Society

A meeting took place on November 23rd when Mr. O. Gayer Morgan was the guest for the evening. There was a demonstration of 14 cases in the Eye Out-Patient Dept. These were chosen as examples of " Physical Signs in the Eye in Common Systemic Disease " which was the subject for the evening. Dinner followed in the College and afterwards Mr. Gayer Morgan gave a short address. A brief paper was then read by Mr. J. Bailey describing new work on " Diabetic Retinitis " relating this condition to other pathological changes occurring in the body. There was then a discussion on the case of an elderly woman who became blind following two incidents of internal upsets, temporary blindness and complete loss of hair. This was presented by Mr. Rhys Jones. After an animated discussion a diagnosis of poisoning, probably by Thallium was thought most probable. The proceedings closed at 9.30 p.m.

Dangerous Corner

A GUY'S THEATRE CLUB PRODUCTION

ONE is often forced to think that the work of the critic is doubly rewarded : first, by his journal and next by the box-office. For the public will always go to see a play which is either highly commended or equally highly condemned. A critique which is published after the play is over, and moreover after a production which boasted no box-office must then of necessity spring from far purer motives.

Perhaps, then, this is the epilogue and not a true critique. Yet " If it be true that a good wine needs no bush, 'tis true that a good play needs no epilogue." Let us say then that this is a review, and those who saw the Guy's Theatre Club presentation of J. B. Priestley's " Dangerous Corner " will agree wholeheartedly with my praise, and will probably condemn me out of hand for my condemnation where it occurs.

The pretence to a real theatre was well maintained. I liked the portraits of the cast displayed at the entrance as much as I liked the printed programmes with real advertisements inside. And real coffee and cakes in the intervals, though not at West End prices, a welcome deviation from theatreland example.

Awaiting the performance one was glad that Euterpe from Helicon's harmonious springs had come to work the radiogram, and not Al Boogie with his Red Hot Tin Pan Swingsters, or worse, the more usual perpetrator of music, Thé Dansant. The choice was excellent.

It gave one time to wonder why, why on earth the Theatre Club had closen Priestley, and in particular his " Dangerous Corner." We admit it is remarkably compact in time and space sequence requiring as it does no change of dress or scene. But very little else can be said in its favour.

Whenever I see a play performed at Guy's my heart goes out to the players, for the difficulties of stagecraft and improvisation must be extreme. May be " All the World's a Stage " but certainly not the dais of the Physiology lecture theatre. It is a constant source of wonder that this great teaching Hospital can offer no better facilities to its theatrically minded members.

Not only was the Caplan's living room beautifully arranged, and in excellent taste, it even counterfeited to be spacious. I wonder how many " Ideal Homes " of the early thirties had to be consulted first ? Or did the producer intend the action to be contemporary ? One was never quite sure. Fashion critics would have insisted on a post-war episode—even perhaps 1950 with Dior infiuence. Yet Priestley's small talk certainly smacked of the care free, chromium plated, cocktail thirties.

The first act moved slowly, and the play rather than the players held the interest. Did Mr. Priestley intend that Miss Mockridge (Janet Thompsom) should be drunk ? The Caplans and Whitehouses need not have feared. Their secrets were perfectly safe with Miss Mockridge : one could hardly have endured to hear her tell them. No, character and caricature must not be confused in amateur dramatics.

The second and last acts showed more and more how much the production depended on the splendid efforts of Olwen (Dilys Lidiard), Freda (Vivien Thorn), and Stanton (Colin Dexter).

Freda moved easily and gracefully about the room. She really showed an admirable and thoroughly understandable concern for sandwiches amidst profound emotional crises and hysterical outbursts from her brother Gordon (Peter Brook) who operated on a rather staccato psychological all or none mechanism. No wonder Freda was tired of her husband. Robert Caplan (Tom Clarke) remained monotonously angry throughout. At the end of his longest second act harangue I inclined to agree with Oliver Wendell Holmes that " silence, like a poultice, comes to heal the blows of sound."

Olwen Peel had character and feeling. This was a part acted with praise-worthy skill and understanding. There is, I am sure, no doubt in anyone's mind where the big bouquet should go.

And the laurels ? Undoubtedly Stanton is the man : a carefully balanced performance with a lot of realism.

Notwithstanding some elements of criticism as well as praise in this review there is no shadow of doubt that the performance was great fun, and we in the audience certainly enjoyed ourselves immensely. Thank you very much, Theatre Club.

L.J.B.

ACADEMIC

December		Exhibition. Surgical Department. "Chronic Diarrhœa."
18th	1.00.	Mr. Carter-Braine. Clinical Lecture.
21st	4.30.	X-Ray Meeting. Gordon Museum.
28th	4.30.	X-Ray Meeting. Gordon Museum.
January		
1st	1.00.	Mr. Lloyd. Clinical Lecture.

OTHER ENGAGEMENTS

December	
30th	Rugby 1st XV. *v.* Old Millhillians. (H.O.P.)

CHRISTMAS ARRANGEMENTS — 1950

Date	*Time*	
Wednesday, December 20th	6.30 p.m.	B.B.C. Choir.
Thursday, December 21st	2.30 p.m.	Salomons' Centre Party in Chapter House, St. Thomas's Street.
Thursday, December 21st	9.15 p.m.	Carol Service and Nine Lessons.
Friday, December 22nd	6.0 p.m.	Choir Boys from Southwark Cathedral.
Saturday, December 23rd	2.30 p.m.	Landon Tea Party in Out-Patients.
	11.40 p.m.	Midnight Service in Guy's Chapel and Melior Street (R.C.).
Christmas Day, December 25th	7.0 a.m.	Guy's Chapel—Holy Communion.
	9.0 a.m.	Cathedral—Holy Communion.

Radiographers and Physiotherapists—A Dance

"Soft eyes looked love to eyes which spake again,
And all went merry as a marriage bell."

Brilliance, charm, colour and enjoyment—such were the qualities that made up the evening when the Physiotherapists and Radiographers held a most pleasurable dance last Saturday at the Caxton Hall, Westminster. The setting, by its scope, layout and delicacy of decoration, was ideal; attendance was adequate without being excessive; the ceremonies were most competently and engagingly "mastered" by one Peter Alan who, in company with his orchestra, provided music that was at once pleasant and appropriate.

Credit goes out to organisers and guests alike, and let there be more of these most attractive engagements.

Book Reviews

Non-Gonococcal Urethritis. By A. H. HARKNESS. Livingstone. *Price* 52*s.*6*d.*

Non-gonococcal urethritis has hitherto received scanty attention. The early symptoms and signs are often mild so that the disease may not be recognised until the onset of blood-borne complications. Dr. Harkness is the first to produce a review after interesting himself for years in this subject, which has now become increasingly important. With penicillin and some of the new antibiotics a certain cure of gonorrhoea can be guaranteed, but the same drugs are ineffective in most cases of non-gonococcal urethritis.

There is a full account of abacterial urethritis, abacterial pyuria and Reiter's syndrome, in all of which the same infective organisms may be responsible.

In this work other causes of urethritis, such as systemic or local disease, are discussed in detail, including non-gonococcal infections of the bulbo-urethal glands of Cowper.

This book has magnificent illustrations which include many original urethroscopic pictures. It is probably too full for undergraduates, for some of whom it will serve as a useful reference book, but it will be read with profit by urologists and venereologists. F.R.K.

Wheeler and Jack's Handbook of Medicine. By ROBERT COOPE. Livingstone. *Price* 20*s.*

A new edition of this popular handbook of medicine appears after a lapse of ten years. It has been completely revised and brought up to date by Dr. Robert Coope. In an admirable introduction he stresses the importance of learning medicine in the wards and not the library.

There is little with which to quarrel in the subject matter of this book, which gives an orthodox view of British medicine. It is, however, very much a handbook, and its value to the student could be considerably increased with some amplification, particularly in the sections on treatment. J.R.T.

Electroencephalography. Edited by DENIS HILL and GEOFFREY PARR. Macdonald. *Price* 78*s.*

This is the first text-book in which all the data relevant to the principles and practice of electroencephalography have been included in a single volume. It is a very specialised book written mainly for those actively engaged in the subject, and as such it is sure to be well received. It is not recommended as an introduction for the beginner.

There are eleven chapters, all written by leading experts in their chosen fields. Dr. Grey Walter, the principal contributor, deals with recording technique, interpretation, normal rhythms and epilepsy. Three chapters are devoted to physiology, biochemistry and pharmocology, two to organic lesions of the nervous system and one to psychiatry.

M.J.P.

Biological Standardization. 2nd Edition. J. H. BURN, D. J. FINNEY and L. G. GOODWIN. Oxford Univ. *Price* 35*s.*

The second edition of Professor Burn's book has been long awaited and its appearance is very welcome. The book has been greatly expanded and the alternative title which is mentioned in the Preface of the 2nd Edition, viz. "Quantitative Methods in Pharmacology and Chemotherapy" is indeed a more accurate description of its scope. There is a special and fairly extensive chapter on the statistical aspects of the subject written by Dr. Finney while Mr. Goodwin describes methods for testing various chemotherapeutic substances, i.e. anthelminthic, trypanocidal, ameobicidal, leishmanicidal and antimalarial substances. Other additions since the 1st Edition include adrenocortical hormones (but not glucocorticoids), male hormones, analgesics, local anæsthetics, quinidine substitutes, curare-like compounds and substances concerned in controlling certain alimentary secretions. Because Professor Burn has restricted the contents to methods of which he has some degree of first hand knowledge there are unfortunately some omissions.

Anyone interested in biological standardisation should possess a copy.

J.M.R.

The Law and Ethics of Dental Practice. By R. W. DURAND and D. MORGAN. Hodder & Stoughton. *Price* 7*s.* 6*d.*

This book deals with an aspect of dental practice with which every practitioner should be familiar.

The written and unwritten laws governing the conduct of the dental surgeon towards his patients and fellow practitioners, and guidance to prevent the errors of commission and omission which he might make, are fully covered.

Whilst of little use to students, this book should be read by all the newly qualified, especially by those about to enter general practice.

R.M.

Text-book of Gynæcology. By J. H. PEEL. Heinemann. *Price* 24*s.*

This book is of great assistance to the Medical Student preparing for qualifying exams for whom the author has primarily written it. It is well set out, excellently illustrated and the text is both well-written and easy to read. It's author, as well as being Obstetric and Gynæcological Surgeon to King's College Hospital, is Director of Clinical Studies at that Hospital.

Z.

Sport

ASSOCIATION FOOTBALL

Inter-Hospitals Cup, 1st Round Replay

At Motspur Park on Monday, Nov. 27th

Guy's Hospital 2 *v.* U.C.H. 2

Guy's played University College Hospital for the second time in this round and once again the match ended even with the score 2—2.

The first half was very even with Guy's being more dangerous in the goal area but neither determined nor fast enough to turn their territorial advantage into goals. The greatest chance in this goalless half fell to Watmore but his close range shot was narrowly wide of the upright.

Lipington showed great skill in subduing U.C.H.'s strong left wing man, Thomson. The Guy's right wing pair, though showing smart touches on occasions, seemed strangely ineffective.

The second half opened disasterously for Guy's when Thomson, U.C.H., showed, for the only time in the match, a clean pair of heels to Lipington and shot strongly into the corner giving Lyon no chance whatsoever.

Within ten minutes Guy's equalised when a shot by Leckie was deflected by a defender to Cornhill who made no mistake.

End to end play continued to be the order and then U.C.H. unexpectedly went ahead when Roden, more in hope than expectation, tried a long bouncer—to call it a shot would be a misnomer—which, due to a defensive slip, managed to roll over the goal line.

Excitement became intense and Guy's really woke up out of what was becoming a lethargic attitude and piled on the pressure. Shot after shot was either blocked or well saved by the U.C.H. custodian. Only minutes remained, and as these ticked by it began to look as though, for the first time since the war, Guy's would not reach the final.

Then, with only seconds left, Oldfield on the left wing gathered the ball, beat a defender, and seeing the goalkeeper advancing, put across a curling shot which, as though radar-directed, went over the goalkeeper's head and inside the upright. A U.C.H. defender uttered what might be charitably reported as, "Well, I'll be jiggered," a remark that summed up everybody's thoughts.

The whistle for time followed almost immediately.

One of the outstanding features of the game was the brilliant refereeing of Mr. Lockton. His tact and ability has, I'm sure, seldom, if ever, been surpassed on a football field, a feeling that was iterated by both sides.

Team : M. Lyon ; D. Lipington, J. Wylie ; D. Matthews, D. Allan, A. Swift ; B. Cornhill, A. Prince, K. Watmore, C. Leckie, D. Oldfield.

Southern Amateur League Match

Away. Saturday, Dec. 2nd.

Ibis 2 *v.* Guy's Hospital 0

Ibis scored a goal in the first minute and one in the last. In between, Guy's goalkeeper only had three dead-ball kicks, none at all in the first half. That just about sums up the territorial supremacy of the Hospital. Against weak opposition this display was as weak and inconsequential as "Naafi" tea. An exhibition like this happens to all teams and provided Guy's remember that they have had their turn and next game go out determined to play football as they can, then no real harm to their reputation will acrue.

From this morass of inaptitude one player stood out head and shoulders and another was up to standard. The former, Bishop, played a fine constructive game at right back, tackling hard and distributing finely. Allan also played a steady game. But for the rest this was not their finest hour.

Team : A. Fearn ; M. Bishop, J. Wylie ; A. Prince, D. Allan, D. Harris ; B. Cornhill, P. Harris, K. Watmore, C. Leckie, D. Oldfield.

Inter-Hospitals Cup, 1st round, 2nd replay

Teddington on Wednesday, December 6th

Guy's Hospital 5 *v.* U.C.H. 1

At the third meeting this tie was decisively settled in favour of Guy's. For the first ten minutes U.C.H. attacked strongly but were unable to penetrate the strong defence of Guy's, and slowly but surely defence was formed into attack. After twenty minutes Guy's took the lead when a hard ground shot by Oldfield was only partially stopped and the ball crossed the line before the goalkeeper recovered and scooped the ball out of the goal.

Half-time came with no further score but it was becoming obvious that Guy's were gaining the upper hand. After five minutes of the second half Guy's increased their lead when a cross from the left was lobbed out of the goalkeeper's reach by Fearn.

Shortly afterwards a model goal was scored by Watmore. A long low clearance from the Guy's defence found Prince who quickly got the ball under control, sent a first-time pass to Oldfield, who centred the ball and the centre forward hit it first time into the corner of the net.

Guy's were now completely on top and the fourth goal came from Fearn who collected a pass, beat the back, and shot well out of the goalkeeper's outstretched arms.

U.C.H. then obtained their consolation goal when their centre forward netted from close range. Within a few minutes Oldfield made it five with a beautifully-judged head after the goalkeeper had misjudged his interception of the ball.

Guy's now meet Middlesex Hospital in round two, and for this we must thank especially the ninety minutes play of Lipington and the cool defence of Howells.

Team : M. Lyon ; M. Bishop, W. Howells ; D. Lipington, D. Allan, D. Harris ; A. Fearn, C. Leckie, K. Watmore, A. Prince, D. Oldfield.

HOCKEY

Past *v.* Present Game

The Past *v.* Present Game and the Annual Hockey Club Dinner will be held on Wednesday, January 10th, 1951. A few places in the Past team have been filled. Will any ex-Guy's hockey players who would like to play please write to :—

W. Vans Agnew or
E. A. Murray, Guy's Hospital, and include their position of play.

Dinner subscription 10*s.*

HOCKEY

Guy's "A" XI *v.* Gravesend 1st XI

At Gravesend. Result—Lost 0—7.

Gravesend won the toss and decided tg defend the drier half of the slightly shelvino field. The Hospital started well and pushed into the opponents' half for the first 10 minutes of the game, but a total lack of co-ordination among the forwards which was evident throughout the whole game, seemed to dishearten the line. Gravesend then took the initiative and in a few moments ran through to score.

The quick and clever passing of the Gravesend forwards proved rather too much for the Guy's backs and although they tried hard the score by half time was 3—0.

The weather which had been doubtful at the start of the game, had now settled down to a steady drizzle.

In the second half, Gravesend had the most of the ball and although the Hospital backs defended well they appeared to be rather outclassed.

The Gravesend side scored four more goals during this half to bring the score to 7—0. The Hospital forwards had little of the ball and most of the attacks fizzled out before nearing the goal.

Deserving special mention is Kingston playing at right half and H. Prentice at centre half.

BOXING

Guy's *v.* R.M.A., Sandhurst

Result—Lost 6—3

The contest between Guy's Hospital and R.M.A., Sandhurst, was held in the Pavy Gymnasium on the 22nd November. This was the first fixture of the season and some new members of the club were tried out. Guy's were handicapped by the age limit of 21 imposed by Sandhurst.

The first four bouts were lost to the Academy. The situation was saved, however, when R. Thompson, by means of hard punching and fitness, beat his opponent on points. His example should be followed by the rest of the club.

B. Cremin, with his usual zest, beat his opponent on points, thus showing that his style, although unorthodox, is very effective.

M. Bishop, heavyweight, filling a vacancy caused by the inability of J. Kendall to attain a certain degree of fitness, won a very good bout against an extremely fit opponent.

There were some very even and good contests during the afternoon, and special credit goes to W. Watson who showed great determination and a punching power seldom equalled for a man of his size. Although the verdict went against him, his opponent would certainly have something to remember while persuing his equestrian activities the following day!

It cannot be overstressed that hard punching and aggressiveness in the ring is the key to success.

Results.

Guy's		*R.M.A., Sandhurst.*
R. A. Peebles	lost to	O./Cdt. A. J. Anghie.
W. Watson	lost to	O./Cdt. P. C. Greenwood.
J. Anderson	lost to	O./Cdt. C. Gordon Stewart.
A. H. Atkinson	lost to	O./Cdt. J. A. Coles.
R. C. C. Thompson	beat	O./Cdt. D. L. Jordan.
B. J. Cremin	beat	Cdt. Sgt. J. J. Firth.
K. Lowings	lost to	O./Cdt. P. Spencer.
C. Wallace	lost to	P. Osborne.
M. Bishop	beat	G. C. Lucas. A.H.A.

Hospital Information, etc.

NOTICES

ASTLEY COOPER STUDENTSHIP GUY'S HOSPITAL

This Studentship, tenable at Guy's Hospital Medical School, will become vacant on 1st January, 1951.

The student, who is called the "Astley Cooper Assistant to the Curator of the Gordon Museum," will be elected for a period of three years.

Particulars regarding the Studentship can be obtained from the Secretary to the Astley Cooper Trustees, Medical School Office, Guy's Hospital, S.E.1, to whom applications for the post should be addressed on or before **20th December, 1950.**

APPOINTMENTS VACANT

Applications are invited for the appointment of **Chief Assistant in the Department for Nervous Diseases.** The post is graded as Senior Registrar and is subject to the Terms and Conditions of Service of the National Health Service. Forms of application are obtainable from the Dean to whom they should be forwarded with the names of three referees to the Medical School Office, Guy's Hospital, S.E.1, not later than **28th December, 1950.**

SOCIETY OF APOTHECARIES OF LONDON

The following Guy's Men have been admitted to the Freedom of the Society by redemption :—

L. R. Broster
H. W. Harvey
P. J. Helliwell
T. H. Hills

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

First Examination
December, 1950

Anatomy and Physiology

G. W. Cowley
J. J. Hall
A. G. Hitchcock
D. M. Lipington
B. C. Rich
J. C. Stephenson
D. R. Taylor
W. R. Thomas
C. Vowles

Special Anatomy and Physiology

F. W. Antscherl
G. W. Cowley
K. J. Gilbert
J. J. Hall
H. A. Hill
N. J. S. Hill
D. K. Hutchinson
T. Lloyd
A. N. Pollock
B. C. Rich
A. E. F. Stearn
J. C. Stephenson
D. R. Taylor
D. E. G. Thomas
W. R. Thomas
F. H. Trist
C. Vowles

SOCIETY OF APOTHECARIES OF LONDON

Final Examination
November, 1950

Surgery

R. D. Hernaman-Johnson
*D. J. Müller

Pathology, Bacteriology and Forensic Medicine

K. B. Bender
R. D. Hernaman-Johnson
H. G. Hexter
W. H. McKendrick
*D. J. Müller

Medicine

W. H. McKendrick

Midwifery

W. H. McKendrick

* Has completed the examination.

UNIVERSITY OF LONDON

Third (M.B., B.S.) Examination for Medical Degrees

October, 1950

Honours

S. S. Epstein

Distinguished in Pathology and Applied Pharmacology and Therapeutics

Pass

D. G. E. Alldridge
B. Bass
A. G. Blyth
W. R. Edwards
N. S. Galbraith
R. Goulding,
M. C. H. Jackson
I. J. MacQueen
J. A. M. Martin
M. Mason
H. F. Pile
I. Rocker
P. W. Ruggles
J. Scorey
I. M. Sharpe
C. Steer
F. H. Walker
A. V. Watts
H. Windschauer

Part I

D. B. Amos
J. H. Bailey
G. A. E. Baker
T. G. L. Bellis
R. J. O. Catlin
D. J. Cliffe
P. J. Cook
K. V. Cooper
M. P. M. Coupland
F. J. Covill
D. M. Devane
R. D. P. Druitt
G. H. Fisch
J. C. Gazet
J. W. Goodfellow
H. V. Hoyle
W. V. James
J. C. Jelleyman
J. C. C. Kendall
A. M. Kingon
P. J. Koblenzer
E. J. Masters
P. M. J. O'Brien
J. N. Pachmayr
S. A. C. Paget
J. Palmer
S. H. Richards
G. C. Saint
M. A. Sorefan
A. G. Spooner
R. V. Steward
D. J. Stoker
E. P. W. Tatford
T. G. Thomas
J. A. Thornton
W. M. E. Tweed
R. A. J. Webb
L. Wollner
K. G. Worms, B.Sc.

Part II

M. P. M. Coupland
P. Dinmore
G. Dixon
G. W. Edward
G. C. A. Holden
T. D. Kellaway
P. H. Kendall
D. Lennie
M. Lewis
K. E. MacLachlan
J. K. Price
J. A. Rycroft
I. B. Thomas
C. B. Vaughan
A. H. Walker, Ph.D.

Part III

J. M. Holden
J. V. Jeffs
P. H. Kendall

PAPERS BY GUY'S MEN

Barber, Hugh. Favourite Prescriptions in General Practice. *Practitioner*, 1950 **165,** 10.

Bishop, P. M. F. and others. Habitual Abortion. Prophylactic Value of Progesterone Pellet Implantation. *Brit. Med. J.*, 1950, ii, 130.

Brinton, W. D. Primary Pulmonary Hypertension. *Brit Heart J.*, 1950, **12,** 305.

Campbell, A. M. G. and others. Lead in Relation to Disseminated Sclerosis. *Brain*, 1950, **73,** 52.

Carnegie, D. M. and another. Clinical Trial of Xylocaine in Local Anæsthesia. *Lancet* 1950, ii, 12.

Clarkson, Patrick. Free Nipple Transplant in Breast Reduction and Breast Amputation (with special reference to Surgical Treatment in Obesity). *Proc. Roy. Soc. Med.*, 1950, **43,** 487.

Clayton-Jones, E. Disposable Ileocolostomy Bags. *Lancet*, 1950, ii, 57.

Evans, P. R. Cardiac Anomalies in Mongolism. *Brit Heart J.*, 1950, **12,** 258.

Hallam John. Some Aspects of Fractures of the Maxillæ. *Med. Pr.*, 1950, **224,** 77.

Hartfall, S. J. Effects of ACTH Therapy *Brit. Encycl. Med. Pract., Interim Suppl.*, 94 (July 1950).

Levin, B. and others. Coarctation of the Aorta (Adult type) with Rupture Distal to the Coarctation. *Arch. Dis. Childh.*, 1950, **25,** 175.

Liddelow, K. P. An Experimental Investigation into Investment Materials suitable for use when Casting High Fusing Base Metal Alloys. *Dental Rec.*, 1950, **70,** 134.

Liddelow, K. P. The Dental Aspects of the Treatment of Clefts and Perforations of the Palate. *Med. Pr.* 1950, **224,** 69.

Moore, A. S. Unerupted Teeth. *Med. Pr.*, 1950, **224,** 62.

Pegum, J. S. (for L. Forman). Exfoliative Dermatitis with Low Plasma Protein, Oedema Fatty Change in the Liver and a Filling Defect in the Stomach. *Proc. Roy Soc. Med.*, 1950, **43,** 488.

Pringle, K. E. Modern Trends in Orthodontic Treatment in Children. *Med. Pr.*, 1950, **24,** 281.

APPOINTED TO STAFF

Surgeon to Guy's and Maudesley Neuro-Surgical Unit, Murray A. Falconer, M.Ch., F.R.C.S.

Assistant Physician in the Department of Psychological Medicine, D. Stafford-Clark, M.D., M.R.C.P., D.P.M.

CHANGES OF ADDRESS

D. F. L. Cook, L.D.S., R.C.S., 101, Station Road, Redhill, Surrey.

Paul M. Davies, M.B., D.P.H., D.M.R., "Grayrigg," Hilgay Close, Cranley Road, Guildford, Surrey. Tel.: Guildford 4788.

D. C. Deuchar, M.B., B.S., 2, Hanover Lodge, Roxeth Hill, Harrow-on-the-Hill, Middx.

J. F. Everson, M.R.C.S., L.R.C.P., P.O. Box 47, Rawsonville, C.P., S. Africa.

Maurice H. Handoll, M.B., B.S., 9, Rochester Avenue, Bromley, Kent. Tel.: Ravensbourne 1217.

BIRTHS

CRABTREE.—On November 26th, 1950, at Abbotsleigh, Exmouth, Devon, to Dr. and Mrs. J. W. A. Crabtree—a son.

EVERSON.—On October 26th, 1950, to Sheila (née Casey), wife of J. F. Everson, M.R.C.S., L.R.C.P.—a son (Terence Paul).

HANDOLL.—On November 21st, 1950, at Guy's Hospital, to Freda (née Watson), wife of Maurice H. Handoll, M.B., B.S.—a daughter (Kay Elizabeth).

RENDELL-BAKER.—On November 30th, 1950, at Cardiff Royal Infirmary, to Rosemary (née Hogg), wife of L. Rendell-Baker, M.B., B.S.—a daughter (Sheila Diane).

TAYLOR.—On October 15th, 1950, at St. John's Hospital, Chelmsford, to Mary (née Horner), wife of Gerald Taylor, Esq.—a daughter.

MARRIAGES

DEUCHAR—KNOWLES.—On Saturday, November 25th, 1950, at St. Stephen's Church, Ealing, Dennis C. Deuchar, M.B., B.S., to Daphne Knowles, S.R.N.

SCULLY—FORD.—On Saturday, October 7th, 1950, at Louth, Lincs., Richard Scully to Barbara Ford, S.R.N.

WATTS—HOUGH.—On Saturday, November 18th, 1950, at St. Barnabas' Church, Sutton, Alan V. Watts, M.B., B.S., to Beryl Hough.

EDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXIV. No. 1629 *30th December 1950* *Ninepence*

PASSIM

GUY'S, in its own spontaneous and righteous manner, has delighted in and survived the two-hundred-and-twenty-fifth Christmas since its inception. Minor details in the programme may have altered over the ages—the nigger minstrels, for instance, are no more—but in spirit and essence the celebration was the same as ever. Fundamentally, the occasion was spiritual and no more appropriate and enjoyable way of emphasising this could have been chosen than starting on the evening of Tuesday, 19th December, with a recital of carols throughout the hospital by the B.B.C. singers. Thereafter, special services were held during the holiday in the chapel and in the wards and the response from the congregation in each instance was most encouraging and the choral items quite inspiring.

On the more material side, no effort was spared to ensure that the prevailing mood should be one of gaiety and fun. A heavy burden fell on the catering department and they were not found lacking. " Christmas, for Mr. Pickwick and his friends, was an affair of copious eating and still more copious drinking, interrupted by bouts of home-made fun and purely domestic horseplay." In so far as the catering staff could contribute to this generous state of affairs they did so with skill, unselfishness and artistry. Considering the small number of occupied beds never was so much apparently eaten by so few. " Gastric " restraints, we fear, went tacitly by the board ; the outcome, at least, may prove enlightening to the more perspicacious of the gastro-enterologists. If the mid-day dinners on the 25th were of magnificent order, the " bone-picking " suppers later in the day were no less exciting. The room belonging to one ward sister resembled by 11 o'clock the aftermath of a Claudian orgy or, at least, a scene from a recent Cecil B. de Mille film. Went the day well !

The ward decorations maintained their customary high standards. As usual, to comment on any in particular is to risk unintended implications about the rest. Nevertheless, the Eye Ward's " Borough Market," complete and replete with real fruits and vegetables and Pat. and Sam's " Treasure Island," with its grizzly skulls and other startling exhibits (but, we regret, no " pieces-of-eight " so far as we could discover) were surely deserving of special mention. For the planning of all these efforts, great credit is due to the sisters and their nurses ; in the actual carrying out of the work a great deal was done by the patients themselves—and what extraordinary and hitherto unsuspected talents were thereby revealed in the most unlikely people ; while in the final act of adornment the ward-clerks and dressers played their usual parts, helpful, critical and amusing by turn, but ultimately devouring, to judge by their performances at their teas which followed.

The Residents, partly by tradition, partly by instinct and, at all events, by natural desire, made sure that theirs was no watching brief. One felt, almost, that sometime beforehand they had settled on a text :—

> " If all be true that I do think, there are five reasons we should drink ;
> Good wine—a friend—or being dry—or lest we should be by and by
> —or any other reason why." *Henry Aldrich.*

This was their guiding star for the days which followed. But never was their imbibing that of the recluse or introvert. If not in fact at any rate in spirit

their one idea was the general good. That, we judge, must have been the excuse of that strangely attired little band abroad throughout the hospital on the night of the 24th-25th. So far as they were concerned the various rites and celebrations were obviously confused; but that was no deterrent. Bacchus vied with Stephen, benevolence held sway with Billy Cotton and, if the patients had such an alarming experience of receiving their stockings with this novel yet cordial greeting, they might well have realised that the nurses, beforehand, had paid the perennial mistletoe ransom.

" Dare quam accipere "—and this was well in evidence. Behind the choosing of the presents was ingenuity as much as goodwill. For one house-man, the predatory " puddy-tat " will pursue him for the rest of his gramo-phone days. To a respected sister, with matrimony imminent, wash-day in the new home will ever remind her of the staff who shared her last Christmas at Guy's. Quite who was responsible for the gift above all others, however, was not exactly clear. At any rate, one notable night-sister of consistently austere and abstemious bearing was gratified, we understand, beyond all expectation to receive no less than a bicycle delivered to the very door of Matron's office and clothed, as it were, not in white samite but in spotless tissue. The plea of the unknown benefactor was adequately sustained—she was not the least bit cross !

And so to the New Year. " What a pity it is," as one porter was heard to say, " that the spirit of Christmas does not go on throughout the year." Putting aside the eating and drinking, for the moment—yet some of us would deny even the wisdom of that, there is no earthly reason why a better outlook should not prevail. So let 1951 be a festival year in all senses of the term, and with this in mind, we say to our readers, may you find peace over the coming twelve months, happiness and goodwill. Such gifts, after all, are not the benefaction of fortune, but are the outcome of our own efforts and the way in which we live our daily lives.

Welcome and congratulations, long overdue, are extended to an old Guy's man and recognised *Gazette* contributor on his appointment as Assistant Physician to the Department of Psychological Medicine, the person in question being Dr. David Stafford-Clark, sometime student, house-officer and registrar to the Hospital.

ACADEMIC

January		
		Exhibition. Surgical Department. " The Tongue."
1st	1.00.	Mr. Lloyd. Clinical Lecture. " Syphilis of the Aural Cavity."
2nd	1.00.	Dr. Cameron. Clinical Lecture. " A History of Medicine."
4th	1.00.	Sir Heneage Ogilvie. Clinical Lecture.
5th	1.00.	Dr. Douthwaite. Clinical Lecture.
8th	1.00.	Dr. Crisp. Clinical Lecture. " Disc Lesions—Treatment by Manipu-lation and other Non-Surgical Procedures."
9th	1.00.	Mr. Blackburn. Clinical Lecture.
11th	1.00.	Mr. Grant Massie. Clinical Lecture.
	4.30.	X-Ray Meeting. Gordon Museum.
12th	1.00.	Dr. MacLean. Clinical Lecture. " The Diagnosis of Coronary Pain."
	2.15.	Combined Round. Preclinical Classroom.
13th	10.00.	Mr. Murray Falconer, Guy's-Maudsley Neurosurgical Unit. Surgical Departmental Round. Clinical Theatre.

SPORT

6th	Rugby 1st XV. *v.* Old Merchant Taylors. (Croxley Green.)
13th	Rugby 1st XV. *v.* Wasps. (Sudbury.)
	Rugby "A" XV. *v.* Wasps "A". (H.O.P.)

"The Chronic Running Ear"

By PHILIP READING, M.S., F.R.C.S.

An abstract of a Clinical Lecture delivered in Guy's Hospital Medical School on November 6th, 1950.

GENTLEMEN: A "chronic running ear" is a prosaic and vulgar illness. The heroine of a novel may be permitted a migraine or a genteel consumption; at one time appendicitis and sinusitis were in vogue as a topic of polite conversation, but "Alfy's running ear" is as unromantic and plebeian as "Mum's bad legs." Certainly otorrhœa has no news value, it is dull. The anatomy of the ear is intricate, its pathology mysterious, no wonder that it is so often relegated to the same mental pigeon hole as back aches, arthritis and constipation.

The "running ear" is important because it is common, because it leads to deafness, because it makes a man lose time from work and above all, because it may kill its victim. Mr. Hart, my house surgeon, has very kindly looked through the Front Surgery records for me, and he has found that during the winter, of every nine children attending at least one is complaining of otitis.

What is a "chronic running ear"? We can define it as a discharge issuing from the middle ear and lasting for more than eight weeks, a completely arbitrary period of time. It excludes acute otitis media except in the later stages of that disease, and external otitis, a subject to which a full hour's lecture could profitably be devoted.

ÆTIOLOGY.

Almost all infections of the middle ear are derived from the naso-pharynx. Text books may mention blood-borne infection as a cause; this is rarely encountered, and need not be remembered. But one will never forget, especially if one has been responsible for the disaster, that clumsy attempts at removing a foreign body from the external meatus may tear the tympanic membrane and cause otitis and mastoiditis.

Colds in the head, influenza, scarlet fever and measles are responsible for acute exacerbations, and chronic nasal sinusitis and infected adenoids maintain a persistent infection of the ears.

"Running ears" are a disease of the industrial poor. They do not eat enough butter, milk, fresh vegetables and fruit, the sun cannot pierce the smoke-darkened skies that overhang them, and in their cramped houses the air is fetid and twice breathed.

ANATOMY.

The middle ear cleft comprises the Eustachian tube, the middle ear and attic, the aditus, mastoid antrum and air cells. The bone which comprises the walls of the cleft is clothed with a thin membrane, the mucoendosteum, and the histology of this is of capital importance in the pathology of otitis.

In the Eustachian tube the muco-endosteum consists of a vascular stroma, on which lies a layer of columnar cells, of mucous glands and of ciliated epithelium. Invading bacteria are trapped in the mucus and are swept back into the naso-pharynx. In the middle ear itself the cilia are few and are mainly confined to the lower part of the cavity. Mucous glands are also less common, and the predominating element is the low columnar cell. In the mastoid aditus, antrum and air cells, this low columnar epithelium forms, on a very thin stroma, the sole covering of the bone.

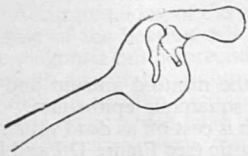


Figure A.

Figure B.

At birth the middle ear cleft stops abruptly at the mastoid antrum (Figure A). During the first five years of life, the muco-endosteum grows out from the antrum into the narrow spaces of the mastoid process and hollows them into air cells, so that normally at the age of five years, the mastoid process is fully pneumatized (Figure B).

Pathology.

Chronic otorrhœa may result from one of several distinct pathological processes, and these are discussed below.

1. Non-Resolution of Acute Pan-otitis.

When acute infection invades a fully pneumatized middle ear cleft, it is at liberty, subject only to the resistance of the muco-endosteum, to invade the most distant air cells in the mastoid tip. This does not, however, constitute the clinical disease of acute mastoiditis. Most patients suffering from acute otitis media complain, in the first few days of the illness, of pain in the mastoid process. Acute infections of the cleft, and involving all its recesses, constitute a pan-otitis (see Figure C.I) ; with careful treatment all these recesses will recover.

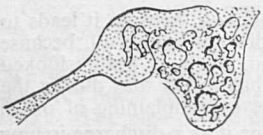


Figure C.I

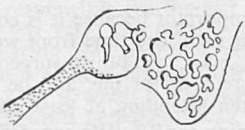


Figure C.II.

Figure C.III.

(a) Chronic infection of some or all the mastoid air cells.

If suppuration persists in some of the mastoid air cells, the patient will continue for weeks or months to suffer from an aural discharge (see Figure C.III and Plate 1). The pus finds its way from the cells into the mastoid antrum and into the attic, and thence pushes its way through a perforation in the tympanic membrane. The incus and the malleus are hindered by the presence of this exudate from enjoying their normal mobility and marked deafness results. Superficial œdema or abscess over the mastoid process may occur, but is not a constant feature.

(b) Chronic infection of the Eustachian tube and middle ear.

Acute infections of the middle ear cleft originate in the naso-pharynx. If, after the resolution of an acute pan-otitis, the focus of naso-pharyngeal sepsis persists, there will be a chronic infection of that part of the ear nearest to the naso-pharynx, i.e. the Eustachian tube and the lowest part of the middle ear, the hypo-tympanum (see Figure C.II and Plate 4). The discharge, thick mucus, secreted by the glands in the Eustachian tube, escapes through a perforation of the antero-inferior quadrant of the drumhead, close to the tympanic mouth of the tube. The rest of the middle ear cleft is fairly normal, the muco-endosteum having blocked the path of the infection higher into the ear and mastoid. Consequently, the hearing is retained, and the rest of the tympanic membrane looks fairly normal

2. Chronic Infection of Attic and Mastoid Antrum.

If the middle ear cleft is exposed to infection shortly before or after birth, the muco-endosteum of the mastoid antrum may be so damaged that it loses its power of excavating the mastoid process, and consequently no air cells are formed in the bone. The middle ear cleft retains its infantile character, and the mastoid process is acellular or non-pneumatized. This condition persists throughout life.

Cholesteatoma.

The columnar cells of the muco-endosteum in the mastoid antrum and in the attic may undergo metaplasia and revert to a squamous epithelium. As time passes, the outer layer of the stratified epithelium is cast off as dead squames and these accumulate in sheets in the cavity of the attic (see Figure D.I and II). After the passage of years, these sheets are found to be packed tightly on top of each other and are compressed by the bony outlines of the attic into a ball, the surface of which is grey and shiny and has been likened to mother-of-pearl (cholesteatoma). On section the centre of the mass consists of concentric layers of dead epithelium disintegrating into a pultaceous core.

The walls of the attic and aditus are eroded by the unremitting pressure of the cholesteatoma. The upper quadrant of the tense part of the tympanic membrane and Shrapnell's membrane are penetrated and a perforation results (see Plate 9). The incus and the head of the malleus undergo a quiet necrosis and the hearing deteriorates.

Such a mass of dead tissue is at first sterile, but any chance re-infection has only to ascend the Eustachian tube to find in it an excellent culture medium. The walls of the attic may have already been destroyed by the cholesteatoma, exposing the dura mater or the interior of the labyrinth, so that at any moment meningitis or labyrinthitis may supervene.

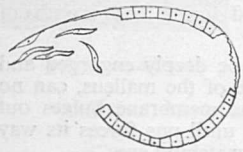


Figure D.I.

Figure D.II.

Figure D.III.

Aural polyp.

During otitis early in infancy, damage to the muco-endosteum of the middle ear cleft may be so extreme that the epithelium dies in one or more places, and there is denudation of the bony walls. Such an exposure of the bone leads to a low-grade, chronic osteitis, with the formation of granulation tissue (see Figure D.III).

Given proper treatment and favourable conditions, this osteitis will subside and the bare bone will again be covered with muco-endosteum, but a large mass of granulations offers an insuperable obstacle to the growth of epithelium over it, and gradually the granulations are drawn out to form a polypus (see Plate 10). As this increases in size, it passes through the perforated drumhead and grows down the meatus, until it presents itself at the surface as a round, red, glistening mass.

Diagnosis.

The patient's cardinal and frequently his only complaint is of an aural discharge. He may also have noticed an increasing deafness. Often only the onset of pain forces him to seek advice. Severe pain, particularly if it affects the entire side of the head, or radiates to the eye and jaw, is suggestive of an inflammatory lesion irritating the dura mater, and calls for urgent treatment. Do not be misled by the pain of an associated external otitis. The skin of the meatus often becomes secondarily infected by discharge from the tympanum, and the resulting inflammation may cause severe pain, sufficient to render the patient sleepless and miserable. Meatitis can be distinguished by the fact that any movement of the meatal lining, such as occurs in yawning, chewing or manipulating the pinna produces an exacerbation of the pain.

The onset of intra-cranial complications, of vertigo or of facial paralysis may provide the practitioner with his first opportunity of seeing a patient who has suffered from chronic otorrhœa for many years.

Accurate taking of the case-history, examination of the discharge and simple testing of the hearing will throw some light on the nature of the disease, but the diagnosis can be precisely made only after the drumhead has been examined through an aural speculum. The accumulations of discharge, of desquamated epithelium and the deposits left behind in the meatus by the evaporation of all the ear drops which have been so faithfully poured in during the wasted weeks of inefficient treatment, render this an operation of no little difficulty. However, the surgeon must persevere, and eventually, using wool twisted on an orange stick and sometimes having recourse to the aural syringe, the meatus will be thoroughly clean. *Then, and only then,* can he form an opinion on the state of the tympanic membrane. It is useless, it may be dangerously misleading, to use the auriscope in a meatus which is still clogged with discharge.

The symptoms and signs of the different types of chronic otitis will be briefly discussed below.

1 (*a*) *Chronic infection of some or all of the mastoid air cells, consequent upon non-resolution of a pan-otitis.*

The history will show that the patient had had no trouble with his ear till the onset of an acute otitis some weeks or months ago. He probably received some treatment for the initial infection, perhaps a course of sulphonamide by mouth, perhaps a series of penicillin injections. The discharge lessened and the pain wore off, but there is still some discharge which may or may not be offensive to the nose, and occasional stabs of pain remind him that all is not well with his ear. His hearing will have rapidly deteriorated during these months of unheeded otorrhœa.

On otoscopy, the tympanic membrane is seen to be deeply engorged and distended, so that the normal landmark of the handle of the malleus, can no longer be seen (see Plate 1). The upper part of the membrane bulges out so much that it may hide the perforation from view, until pus forces its way through and reveals the site of the perforation to the watching eye.

In children, the pus tends to leak out of the attic along the roof of the external auditory meatus between the bony roof and its epidermal lining. A bulge appears in the upper part of the deep bony meatus, and so distorts the passage, that it no longer appears round in section, but assumes the shape of the letter D, when placed on its side : ᗡ (see Plate 2). These meatal swellings have been confused with simple meatal boils, such as occur in staphylococcal infection of the skin of the external auditory meatus. Furuncles are restricted always to the lateral, membranous part of the meatus and they never attack the skin of the medial, bony meatus.

Deafness will be marked and there may be slight tenderness on pressing the mastoid process.

1 (*b*) *Chronic infection of the Eustachian tube and middle ear, consequent upon persistent infection in the naso-pharynx.*

The patient has had a constant or recurring discharge for months or years, after an initial attack of otitis, perhaps in infancy. The discharge is stringy, due to the large amount of mucus in its composition. The hearing is affected to a trifling extent. Astley Cooper was the first to point out, in 1801, that perforations of the anterior part of the tympanic membrane do not interfere with the hearing, and in this type of infection, the position of the perforation is fairly constant. The hole has clean cut edges and lies in the antero-inferior quadrant of the membrane. Through the perforation may be seen the muco-endosteum on the inner wall of the middle ear, normally pale lilac in colour (see Plate 5) but, during acute exacerbations, it becomes fiery red, and may, where gross destruction of the membrane has taken place, be mistaken for the inflamed drumhead itself (see Plate 6).

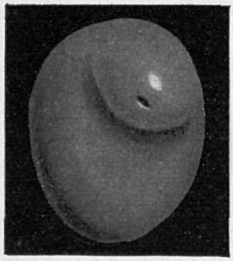
2. *Chronic infection of attic and mastoid antrum.*

Otorrhœa has been present for years ; at times it has almost ceased, at other times it has become more profuse as a result of an intercurrent discharge. Pain is usually absent, except where complications have set in, and a steady and insidious deterioration in the hearing is a usual complaint.

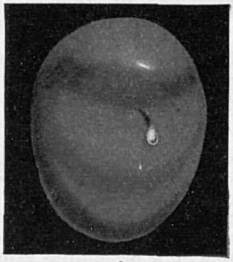
The external auditory meatus contains dried crusts and a sticky and very offensive discharge. Those who enjoy a well-matured, full-flavoured Brie cheese, would be well advised not to adopt otology as a career.

The perforation will often be found to be *marginal.* Any hole in the tympanic membrane, no matter where it is situated in the membrane is *central* so long as its edges are formed entirely of the membrane (see Plates 1, 2, 5, 6). When some part of the edge is composed, not of the membrane, but of the bony margin of the meatus (annulus tympanicus) the perforation is said to be *marginal* (see Plates 8, 11, 12). This is a reliable indication of osteitis and of the presence of cholesteatoma. This substance can be recognised with the auriscope by its resemblance to cream cheese. It can be seen (see Plate 7) protruding through a perforation of Shrapnell's membrane, or destroying entirely the upper part

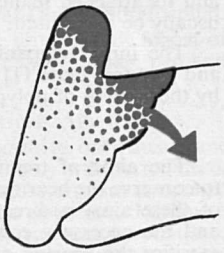
CHRONIC INFECTION OF MASTOID AIR CELLS.



1.
Bulging membrane.

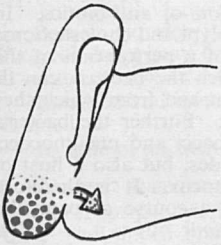


2.
Sagging meatal roof.

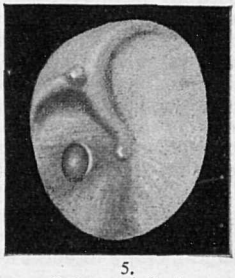


3.
Diagram of sagging roof.

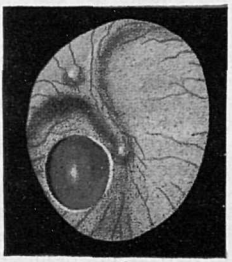
CHRONIC INFECTION OF EUSTACHIAN TUBE AND MIDDLE EAR.



4.
Diagram of antero-inferior perforation.

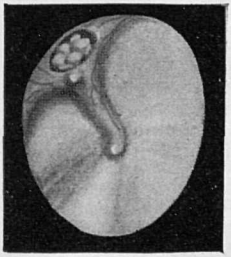


5.
Quiescent infection.

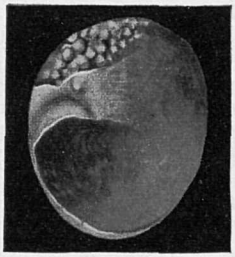


6.
Active infection.

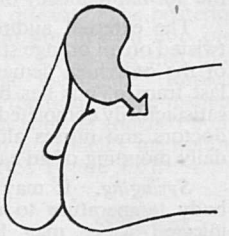
CHRONIC INFECTION OF ATTIC AND MASTOID ANTRUM.



7.
Cholesteatoma in perforation of Shrapnell's membrane.



8.
Gross destruction of drum-head, cholesteatoma in attic.



9.
Diagram of perforation of Shrapnell's membrane.

10.
Diagram of growth of polyp.

11.
Small polyp.

12.
Large polyp.

of the tympanic membrane (see Plate 8). The short process of the malleus and its attached mallear folds are the last structures to be destroyed, and can usually be recognised.

The inner tympanic wall may be covered with granulations (see Plate 8), and part (see Plate 11) or the whole of the tympanic membrane may be obscured by the growth of polypus (see Plate 12).

Treatment.

The aims of treatment are threefold : to safeguard the patient's health, to conserve the hearing and, if possible, to arrest the discharge. The importance of these aims is directly in that order, but sometimes they are irreconcilable, and the necessary compromise calls for careful judgment. It is a tragedy to sacrifice the hearing of a child by a premature radical mastoidectomy ; it is a greater tragedy if a young adult dies from intra-cranial suppuration as a result of tardy and inefficient therapy.

Penicillin and chemo-therapy. The great majority of *acute* infections of the middle ear cleft is caused by hæmolytic streptococci and pneumococci, organisms which are extremely susceptible to the action of anti-biotics. In *chronic* otitis structural changes such as granulations, polypi and cholesteatoma not only provide a mechanical barrier to the healing of a perforation of the tympanic membrane, but also provide fox holes in which the bacteria can lie low during the heaviest chemo-therapeutic bombardment and from which they can emerge unscathed as soon as the barrage is lifted. Further the bacteria present in chronic otitis comprise not only the streptococci and pneumococci sensitive to the action of penicillin and the sulphonamides, but also a host of insensitive Gram-negative bacilli, including B. pyocyaneus. It is therefore apparent that, while it may be good practice to give a course of penicillin injections to control temporarily an acute phase of *chronic* otitis, it is useless to rely on anti-biotics or chemo-therapy to effect a permanent cure.

Ear mopping. No infection of the middle ear cleft can be expected to recover if the meatus contains a mass of exudate. The presence of pus and debris in the meatus and close to the perforated membrane encourages secondary infection of the ear by saprophytic bacteria, non-sensitive to penicillin, and counters the normal tendency of the tissues towards healing.

The external auditory meatus must be mopped clean by means of wool twisted on an orange stick at least twice a day, and more frequently if the volume of the otorrhœa demands it. The auriscope must be used to verify that the last trace of pus has been wiped away before the treatment can be said to be satisfactorily completed. Generally speaking, with some honourable exceptions, doctors and nurses alike show a sad lack of conscientious application in the daily mopping of an ear.

Syringing. It may be necessary to syringe the meatus with tap water at body temperature to remove adherent crusts. There is no danger that the injected water may flood the middle ear with germs from the meatus. Theoretically it is a possible peril, practically it is quite safe.

Ear drops. The drawback to the routine use of the syringe as a therapeutic measure is that the skin of the meatus is rendered sodden by the water and therefore liable to succumb to external otitis. For the same reason, the use of ear drops is discouraged. Most of them are in aqueous solution and their ill effects on the meatal skin more than outweigh the very doubtful good they may be expected to achieve in the tympanum, if indeed they ever reach that cavity. If ear drops are prescribed, they take precedence in the patient's mind over the essential twice daily mopping. As a result, the cleaning is scamped, and the drops are instilled into a meatus, the inner half of which is plugged by inspissated collections of discharge. Ear drops are to be used only with a specific purpose, and preferably they should be put into the meatus only by a trained nurse, who can verify with the auriscope that the meatus is clean.

General hygiene. The battle between host and bacteria is decided not only by the virulence of the invading germs and the local tissue reactions, but also by the patient's general health. As most of the victims of chronic otitis are poor, town-bred children, treatment should begin with a stay in the country, where good food and fresh air can be enjoyed at the same time that the ear is

receiving the necessary skilled attention. Every urban hospital should have a country annexe where these patients can be transferred. In this respect the Ear Department at Guy's is fortunate in having its beds at Orpington Hospital.

Such local and general treatment is the first step in arresting all forms of uncomplicated chronic otitis. Different pathological changes may demand differing modes of therapy, and these are detailed below.

1 (*a*) CHRONIC INFECTION OF SOME OR ALL OF THE MASTOID AIR CELLS.

When the mastoid air cells are the source of a suppurative otorrhœa some weeks or months after an acute otitis, cortical mastoidectomy will be required. Through an incision of the skin behind the ear, the mastoid antrum is opened by the hammer and gouge, and all the mastoid air cells are opened and drained. Note that the operation does not trespass on the middle ear and its contents. A carefully performed cortical mastoidectomy, followed by competent after-care, is rewarded both by a complete cessation of discharge and by considerable improvement in the hearing (Figure E).

1 (*b*) CHRONIC INFECTION OF THE EUSTACHIAN TUBE AND MIDDLE EAR.

Through the large perforation usually present (see Plates 5 and 6) ½% Iodine in Boracic powder is insufflated into the typanum. As an alternative 10% Argyrol drops may be instilled through the hole and pumped down by digital pressure on the meatal orifice into the Eustachian tube.

Enlarged and infected adenoids should be removed, and suppurating sinuses drained.

In spite of all treatment, these infections tend to recur very readily.

2. CHRONIC INFECTION OF ATTIC AND MASTOID ANTRUM.

Aural polyp. Sessile granulations may be shrivelled up by the application on a wool-tipped orange stick of a drop of tri-chloracetic acid or a crystal of chromic acid. Polypi are removed under pentothal anæsthesia through the meatus by means of an aural snare.

Cholesteatoma. The nature of this disease is gradually to destroy the ossicles and with them the hearing. Further, the walls of the attic and antrum are eroded and the meninges are exposed to infection. Surgery is therefore indicated and consists of removing the outer walls of the attic, aditus and mastoid antrum, so as to give access to the site of the disease. The posterior meatal wall is lowered and the middle ear and antrum are thrown into one cavity (see Figure F.II). The incus and malleus may be so carious that they must be removed together with the entire tympanic membrane (Radical mastoidectomy), but, if the disease is limited strictly to the head of the malleus and the incus, the pars tensa may be left behind together with its attached body of the malleus, the head of the malleus, the incus and Shrapnell's membrane being taken away (Modified radical mastoidectomy) (see Figure F.I).

Figure E.

Figure F.I.

Figure F.II.

The surgeon is careful not to remove the stapes, lest the oval window be opened and the labyrinth flooded by bacteria.

No matter how brilliantly the mastoidectomy may be performed, the surgeon's skill is wasted if the patient does not receive conscientious local and general treatment after the operation.

While many cases of chronic otitis do not originate in a clinically perceptible acute infection, many running ears are the result of ill-treated acute otitis media. Early diagnosis of acute otitis media and prompt and adequate treatment would do much to lessen the number and the severity of these chronic infections, and that will be your duty as general practitioners.

I am indebted to the Medical Illustration Department for the care and skill with which they prepared the figures and coloured plate.

Inguinoclasis

By Sir HENEAGE OGILVIE, K.B.E., M.D., M.Ch., F.R.C.S.

THERE is no more important operation in surgery than the repair of inguinal hernia and none that is worse done. In the old days the masters studied operations that returned the healthy to health, and men like Astley Cooper, Ferguson, McEwen, Kocher and Halsted interested themselves in the inguinal canal. Today, professors of surgery are concerned solely with antics on surgical tight ropes, with making hydrocephalic babies slightly less like tadpoles, and blue babies a lighter shade of mauve. They scorn to operate on hernia themselves or to teach their juniors what, it anything, they know about the subject. The embryo surgeon must learn his technique from a text book, where second-rate worthies have copied the teaching of others of the same calibre through endless editions, and try it out by human vivisection. When he has had his Fellowship three years, he probably devises a new operation himself and talks about it another three. Then he drops inguinal surgery for something more bizarre and profitable.

A visit to any surgical centre from Seoul to Seattle offers the same experience. In theatre I, the great man is doing the tremendous operation that has made him world-famous, with unction and the competence brought by long practice. In theatre II, the first assistant is doing the same operation quietly and very much better. In theatre III, a youngster is wrecking the inguinal canal of some workman with joyful ferocity. The technique of inguinoclasis differs but little from clinic to clinic. An incision is made above and parallel to Poupart's ligament and the branches of the superficial epigastric vessels are picked up and ligatured. Skin towels are put on. The external oblique aponeurosis is split in the line of its fibres down to the external ring, and the upper and lower leaves are separated from the muscular layer. From now on surgical dissection gives place to canine divulsion; knife and scissors are replaced by swab and blunt dissecting forceps. The sac is seized and everything is pulled off it, particular care being taken to shred the cremaster and to tear the fascia round the neck, so that a wide funnel of parietal peritoneum can be pulled up and ligatured. The natural defences, fibrous and muscular, having been destroyed beyond recovery, the sabotage is completed by a few stitches pulling the lacerated muscles down to Poupart's ligament behind the cord. The external oblique is resutured over the mess, and the skin incision is closed with meticulous care. We know from war-time statistics in the Services that the recurrence rate of inguinoclasis is 20 per cent. within the first six months, 30 per cent. at the end of the year.

How can we do better? Surely by studying the natural inguinal defences, preserving them when they are still capable of doing their job, replacing them by something as strong when they have failed.

Nature has had to solve a very difficult problem in the inguinal region. The vessels and nerves to the upper limb flow out from the neck of the thoracic jug and make their way between a set of muscles plastered on to its exterior. The vessels and nerves of the leg come out from the abdomen with a powerful group of flexor muscles arising within it. In quadrupeds, the plane of the abdominal wall is at right angles to that of the emerging flexor group; in orthogrades, the two lie in the same plane, and only the unexplained miracle of Poupart's ligament seals the gap. But to add to the difficulties of this region, the mammalian testicle has seen fit to seek a more equable and varied temperature outside of the body, and it makes a hurried exit from the abdominal cavity in the inguinal region during the weeks immediately preceding birth, pushing all the layers of the abdominal wall, fascial, muscular and aponeurotic, before it. The track it leaves behind it is the inguinal canal. (Fig. I).

The fascial layer is the transversalis fascia, an anatomical figment in most places, but a tough sheet where it forms the posterior wall of the inguinal canal.

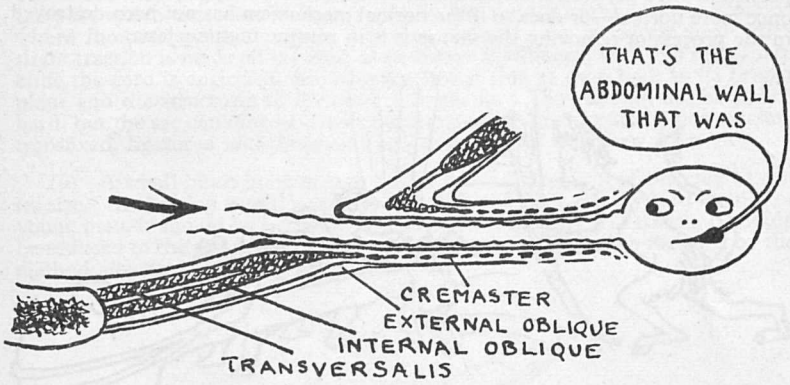


Fig. 1. The "descent" of the testis.

The emerging testis carries with it a layer of this fascia that envelopes the cord as the internal spermatic fascia. Where the testis comes through, the fascia is thickened to form the internal ring, a tough fibrous sling that suspends the cord from the back of the transversalis muscle. (Fig. 2). The two muscles that form the muscular layer have been fused round the path of the testicular

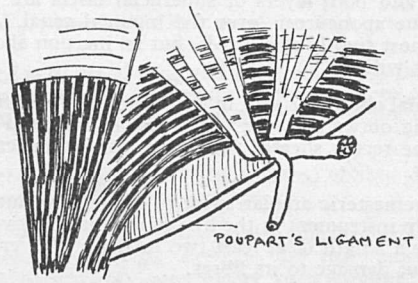


Fig. 2. Diagram of the right inguinal canal from behind (after Lytle), to show the sling shape of the internal ring.

exit to form the conjoined tendon, and the fibres lying in its way have been carried by it into the scrotum as the cremaster. It is just as simple as that. The internal oblique, transversalis, conjoined tendon and cremaster are all the same thing. Finally, the fibres of the external oblique aponeurosis are pushed aside as the testis gains the outside world, and the split remains as the external ring.

The defences of this evolutional hernia are inherent in the method of its production. When the abdominal muscles contract, raising the intra-abdominal pressure and tending to force more cord out of the abdomen, their displaced and extruded portions, which share the same innervation, contract at the same time. (Fig. 3). The external oblique aponeurosis becomes taut, approximating the pillars at the external ring and narrowing its aperture, forming a firm sheet in front of the deep layers, and fixing Poupart's ligament and the rectus sheath, the origin and insertion of their lower fibres. The cremaster contracts, pulling the testis up in the scrotum and pulling the cord back towards the internal ring. The conjoined tendon flattens down on to Poupart's ligament. The fibrous sling of the internal ring is pulled upwards and outwards by the transversalis.

In the majority of early oblique herniæ in children and young men this mechanism is intact. The only abnormality in the inguinal region is the persistence of a peritoneal sac, and with the removal of the sac the canal becomes once more normal—or does so if the normal mechanism has not been destroyed in the process of removing the sac, as it is in routine inguinoclasis.

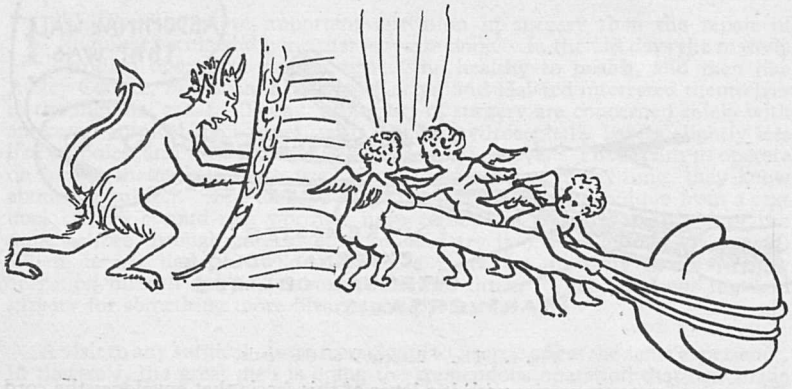


Fig. 3. Abdominal pressure versus the muscles.

The steps in the standard operation for the cure of an oblique inguinal hernia, where the inguinal mechanism is still healthy, are therefore as follows :

(1) The skin and both layers of superficial fascia are divided to expose the external oblique aponeurosis over the inguinal canal. A crease incision heals best and is most sightly afterwards, but an incision above and parallel to Poupart's ligament will do.

(2) The external oblique is split in the line of its fibres from the mid-point of the external ring outwards ; the upper leaf is dissected back to show the outer border of the rectus sheath, the lower leaf is dissected down to show Poupart's ligament.

(3) The subcremasteric areolar space is opened by cutting the cremaster muscle with a sharp instrument in the line of its fibres, above or below the ilio inguinal nerve, for a length of at least two inches. The cremaster is pushed off the cord without damage to its fibres.

(4) The cord is lifted free from the cremaster and the internal spermatic fascia is incised by a gentle stroke with a sharp knife to lay the sac entirely bare.

(5) The bare sac is picked up with hæmostats, and, working at right angles to its axis, every shred of cord tissue is pushed off its wall with non-toothed dissecting forceps. Nothing must be pulled and nothing torn, nor must the temptation to wander longitudinally be indulged, till the circle is complete and the whole circumference of the sac, free of any shreds, is enclosed in a ring of forceps.

(6) The sac, so isolated, is drawn away from the cord, and the same plane is followed till the fundus is free.

(7) The fundus is seized in hæmostats and drawn upwards. The cord is pulled towards the pubis with his fingers by an assistant. The sac now emerges from a lateral slit, made by the knife, in the tube of internal spermatic fascia, and it is cleared towards but not up to the neck by detaching the structures that adhere to it, of which the vas is the most adhesive.

(8) When the deep epigastric artery comes into view the plane of the all-important fascia transversalis is being approached. A small retractor or blunt hook is placed under the upper leaf of the cremaster, and the muscle layers, which include those arching up from Poupart's ligament over the cord,

are drawn upwards and outwards, till the cord in its sheath can be seen coming out of the flat plane of the posterior inguinal wall like the oesophagus coming out of the diaphragm. This aperture is the key to the whole inguinal canal, the pass which the other defences support but cannot replace. The junction where internal spermatic fascia becomes internal ring is clearly seen when slight traction is made on the cord as an almost tendinous plane. With a sharp knife the cord is encircled, allowing the strong ring to drop back to its proper plane and the structures of the cord to come up. They should not be pulled hard, but the sac can now be drawn out to its origin in the pariteal peritoneum, transfixed, ligatured and dropped back, when it will disappear from view.

(9) A small blunt hook is now put in the inner margin of the ring to test its size. If the ring is still a snug fit for the cord, as it usually is in a child or young man, it should be left alone. If it is stretched, but still strong, it should be reduced to the required size by one or two stitches medial to the cord by the method advocated by Lytle. (Fig. 4).

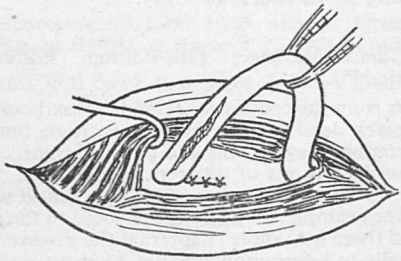


Fig. 4. Narrowing of the internal ring (Lytle's Method).

(10) The cord is dropped back and the cremaster is put round it again by a few interrupted sutures of 00. catgut, loosely tied to avoid strangulation. Next to the internal ring, the cremaster is the most important item in inguinal defence.

(11) The real job is finished. The external oblique aponeurosis and the superficial layers are closed *secundum artem.*

That, then, is the method of conservative inguinal repair, applicable to all early oblique herniæ, where the defences are still undamaged, and giving 100 per cent. of permanent cures under such circumstances. Where the inguinal mechanism has failed something entirely different is needed, a reconstruction of a normal mechanism that has gone wrong by plastic means, a replacement of the work of nature by the work of man. That is another story. There are 57 good methods and 490 bad ones, and they can all be found in text books, particularly the latter. And the worst of the lot is Bassini, because it claims to be a repair operation, but is no more than the scaffolding on which a good repair can be built. The surgeon who has once been infected by Bassinism remains an inguinoclast to his life's end. Even the worst of operations have their indications. There is a well-known professor of surgery, who today burns off breasts with a red hot soldering iron, and in advanced cancer this may be better than burning the breast, the ribs and the pleura with deep therapy. The Bassini is the only operation that is bad under all circumstances ; in a early hernia it is wanton destruction of useful structure, in a late hernia it is half-hearted reconstruction with material that can never make a strong repair. Bassini was a great surgeon. Hippocrates, Avicenna, Paulus Æginetus, Hunter, Abernethy, Pott, Astley Cooper and Hilton were all great surgeons. We remember them by the principles they taught, but we do not practise their technique today. Why should poor Bassini remain the patron saint of the inguinoclasts ? Let us give him his due. Let us inscribe his name in the rôle of the great pioneers. Let us keep his writings in our libraries. But for the sake of suffering humanity let us put his operation where it belongs, and pull the plug.

Book Reviews

Physics in Medical Radiology. By S. RUSS, L. H. CLARK and S. R. PELC. 2nd Edition; Revised. Chapman and Hall. *Price* 25*s.*

In rewriting much of the original text the authors have sought to make available details of the physical aspects of developments in Medical Radiology. Part I now covers Elementary Physics, X-Ray Physics and Radioactivity, whilst Part II deals with Photographic Processes and Electrotechnics, including a new section on Tracer Technique.

The subject covers a wide field and the treatment is limited. Omission of much of the elementary matter would have enabled the authors to devote more space to recent advances. Thereby the book would have gained in value to those daily concerned with Radiology Physics whilst the student, whose knowledge of Physics rarely extends beyond 1st M.B., could be directed to other text books containing the more detailed explanations of elementary physical phenomena pertaining to his course of study. R.W.S.

Savill's System of Clinical Medicine. 13th Edition. Edited by E. C. WARNER. Arnold. *Price* 35*s.*

This book differs from the conventional medical textbook. It is not primarily a catalogue of diseases described as separate entities, but sets out rather to discuss the interpretation of symptoms and physical signs. Individual diseases are described in the discussions of differential diagnosis. Treatment is dealt with very briefly. The book contains a wealth of clinical wisdom and the field covered is wide. For example, 36 pages are devoted to the problems of the ear, nose and throat, and there is a whole chapter on the diseases peculiar to women.

The book is hardly to be recommended as a substitute for the conventional textbooks of medicine, and it is not of great value as a work of reference. Nevertheless, it is a work book which anyone, whether student, practitioner, or specialist, might well keep on his shelves. He would seldom turn to it without enlightenment. R.E.I.

A Manual of Physics. By J. A. CROWTHER. 5th Edition, 1950. Oxford University Press. *Price* 21*s.*

This well-known and deservedly popular elementary text-book of physics has been reprinted many times since its first appearance in 1919, but still remains substantially the same in form and general characteristics, notwithstanding the pruning away of a little dead wood and the insertion of some new material. This is at once a tribute to the excellence of the original design, and a consequence of the author's lifelong conviction that the beginner must master the essential principles of classical physics before attempting any serious study of the exciting developments of the last thirty years. The subject matter of the book is presented in the lucid and attractive style which is characteristic of the author, and the new edition may be warmly recommended to all who desire to acquire a sound knowledge of physics up to a level approximating to the Ordinary standard of the new General Certificate of Education. The "Manual of Physics," though originally intended mainly for medical students, goes little beyond School Certificate standard, and neither in content nor in general outlook is it very well adapted to the present day needs of first year students taking special internal courses in London medical schools. The use of a convention which gives a positive sign to the power of a convergent optical system is to be recommended, but it is a pity that refraction at a single spherical surface, such as the cornea, is not discussed, that a modern form of ophthalmoscope is not shown, and that an elementary account of the resolving power of a microscope is not included. The treatment of surface tension and viscosity is a little meagre, and the chapter on alternating currents, though welcome, might well be made fuller. Radiation physics hardly gets the treatment that it deserves, cathode rays and X-rays being disposed of in six pages, radioactivity in seven pages, and artificial radioactivity in sixteen lines; whilst the nuclear theory of the atom, the quantum theory, and fundamental particles other than electrons, are not mentioned. G.S.

Neurosurgical Unit

A Neurosurgical Unit, under the care of Mr. Murray Falconer, M.Ch., F.R.C.S., is now in operation in the Hospital. It has temporarily sixteen surgical beds on the 1st floor of the York Clinic, and four beds on the ground floor of Nuffield House. Operating facilities are being provided in Nuffield House Theatres and X-Ray facilities on the basement floor of York Clinic. On all official documents it is to be referred to as the Neurosurgical Unit.

The Unit is a combined Guy's-Maudsley Unit and will in due course be housed at the Maudsley Hospital.

For administrative purposes the beds in the Neurosurgical Unit will be added to the complement of Guy's Hospital Beds, with consequent reduction in the York Clinic complement.

Admissions to Neurosurgical Unit beds will be arranged through the Superintendent's Office, or the Front Surgery, as with all other Guy's patients.

These arrangements will come into force as from December 12th, 1950.

Sport

RUGBY FOOTBALL

Fixture List, 1951

FIRST XV

		Opponents	*Ground*
January			
Sat.	6th	Old Merchant Taylors	Croxley Green
,,	13th	Wasps	Sudbury
,,	20th	**England *v.* Wales**	**Swansea**
,,	20th	Metropolitan Police	H.O.P.
,,	27th	Devonport Services	Devonport
Mon.	29th	Paignton	Paignton
February			
Sat.	3rd	Coventry	Coventry
,,	10th	**England *v.* Ireland**	**Dublin**
,,	17th	Aberavon	H.O.P.
,,	24th	**England *v.* France**	Twickenham
,,	24th	Llanelly	H.O.P.
March			
Sat.	3rd	London Welsh	H.O.P.
,,	10th	Old Alleynians	H.O.P.
,,	17th	**England *v.* Scotland**	Twickenham
,,	17th	Gloucester	Gloucester
,,	24th	**Easter**	
,,	31st		
April			
,,	7th	Richmond	Richmond

INTER-HOSPITALS

RUGBY FOOTBALL CUP, 1950-51

London / St. Georges — *Semi-Final* — 2.45 Feb 15
West-minster / Middlesex — Mar. 6 — 2.45
King's College — 2.45 Feb. 20 — *Final* — 3 p.m.
2.45 Feb. 6

U.C.H. Charing Cross — 2.45 Feb. 8
St. Mary's — 2.45 Feb. 22 — *Semi-Final* — 2.45 Mar. 8 — March 21st
St. Thomas' St. Bartholomew's — 2.45 Feb. 13
Guy's — 2.45 Feb 27

All matches will be played at Richmond.

HOCKEY

Past v. Present Game

The Past *v.* Present game and the Annual Hockey Club Dinner will be held on Wednesday, January 10th, 1951. A few places in the Past team have been filled. Will any ex-Guy's hockey players who would like to play please write to

W. Vans Agnew, or

E. A. Murray, Guy's Hospital, and include their position of play.

Dinner subscription 10*s*.

Hospital Information, etc.

GUY'S HOSPITAL CHRISTIAN UNION

The Christian Union wishes to thank all those who showed an interest in the meetings held in the Hospital in connection with the recent " Mission in London University."

Regular meetings are held during term-time on Thursdays at 5.00 p.m. in the Dental Theatre to which all are invited.

Details of these and other activities may be seen on the Union notice board in the Colonnade.

A. T. TARRANT,
Hon. Secretary.

PASS LIST

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

October, 1950

Pathology, Bacteriology and Forensic Medicine

F. J. Covill

Medicine

I. J. MacQueen — D. J. Muller

Midwifery

M. M. Levene — D. J. Muller
A. Ross

UNIVERSITY OF CAMBRIDGE

October, 1950
M.D.
G. P. Baker

CONJOINT BOARD

First Examination

December, 1950

Anatomy

J. A. Carman — A. Halamandres

Physiology

A. Halamandres — J. W. Kirkbride

Pharmacology

E. W. G. Birch — D. C. Harris
L. H. Brearley — D. S. Robinson
L. M. Davis — D. L. Rugg-Easey
J. Dennis — A. H. Walker
F. C. Emberton — L. Yoke Htyan

ROYAL COLLEGE OF SURGEONS OF ENGLAND

December, 1950

F.R.C.S.

Final Examination

C. A. G. Cook — J. T. M. C. Jenkins
J. Crossley. — D. O'Keefe
B. J. Fowler — C. R. Neve
O. C. Fung

L.D.S.

First Examination

December, 1950

Special Anatomy and Physiology

P. A. McGuckin

Second Examination

December, 1950

G. V. Howard-Kyan — A. E. Milne
J. Lopian — C. W. H. Moore
J. C. Matthews — J. M. Turner
D. U. E. Miller

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

Diploma

A. W. Banks — K. A. A. Campbell
T. C. L. Parry

UNIVERSITY OF LONDON

Postgraduate Diploma in Psychological Medicine

October, 1950

Pass

W. H. Trethowan

Part A

G. I. Tewfik — D. M. Lausmer

PAPERS BY GUY'S MEN

Bishop, P. M. F. Refresher Course for Medical Practitioners. Menstrual Disorders and the Menopause. I. Physiological Basis and Diagnosis. *Brit. Med. J.*, 1950, ii, 1214.

Bishop, P. M. F. Refresher Course for General Practitioners. Menstrual Disorders and the Menopause. II. Management and Treatment. *Brit. Med. J.*, 1950, ii, 1268.

Blake, G. C. Universal Gingivectomy Knife Using Bard-Parker Blades. *Brit. Dent. J.*, 1950, **89**, 226.

Cathie, I. A. B., and another. Adjuvants to Streptomycin in Treating Tuberculous Meningitis in Children. *Lancet*, 1950, ii, 784.

Clarkson, Patrick. Treatment of Congenital Adactyly by Pedo-Carpal Transference. *Proc. Roy. Soc. Med.*, 1950, **43**, 905.

Hinde, Raymond T. A Review of the Diagnostic Problem in One Hundred Cases of Chronic Maxillary Sinusitis. *J. Laryngol. Otol.*, 1950, **64**, 687.

Kark, R. M., and others. The Effect of Oral Therapy with Cobaltous Chloride on the Blood of Patients Suffering with Chronic Suppurative Infection. *New England J. Med.*, 1949, **240**, 749.

Kark, R. M., and others. Measurement of Serum Cholinesterase Activity in the Study of Diseases of the Liver and Biliary System. *Gastroenterology*, 1950, **15**, 304.

Lane, R. E. The Patient and his Job. *Physiotherapy*, 1950, **36**, 216.

McGregor, H. G., and another. Hæmorrhogic Diathesis. *Proc. Roy. Soc. Med.*, 1950, **43**, 898.

MacKeith, Ronald. Diaphragmatic Pain in Children. *Practitioner*, 1950, **165**, 631.

McLean, John W. An Investigation into the Physical Properties, Histopathology and Clinical Technique of the Mouth Temperature Polymerising Resins. *Brit. Dent. J.*, 1950, **89**, 215.

Ogilvie, Sir Heneage. Cancer of the Stomach. *Med. Pr.*, 1950, **223**, 487.

Piercy, J. E. Factors Contributing to Safety in Surgery of the Thyroid. *Ann. Roy. Coll. Surg. Eng.*, 1950, **7**, 358.

CHANGES OF ADDRESS

Surg. Capt. F. C. Hunot, R.N. (retd.), from 7, Durban Street, Grahamstown, C.P., S. Africa, to c/o Midland Bank, Ltd., Plymouth, Devon.

J. M. McArthur, F.R.C.S., Flat C, 31, Hall Drive, Sydenham, S.E.26. Tel.: Sydenham 5990.

BIRTH

THORNE.—On November 10th, 1950, at Guy's Hospital, to Dorothy, wife of M. G. Thorne, M.B., B.Ch.—a daughter (Sarah).

DEATH

PLATTS.—On December 18th, 1950, Harry Platts, M.R.C.S., L.R.C.P., of 112, London Road, Chelmsford, Essex.

EDS. { R.G. / P.A.Z.

Bound By
Blissett Bookbinders
020 8992 3965